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FOREWORD

The Institute of Latin-American Studies of The University of Texas continues with this publication, under the general title of *Latin-American Studies,* a series of monographs and volumes in the Latin-American field, including proceedings of conferences sponsored by the Institute of Latin-American Studies.

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RESOURCES OF LATIN AMERICA: A STUDY IN METHODOLOGY*

ERICH W. ZIMMERMANN

Professor of Resources, The University of Texas

Part I

In 1933, Harper and Brothers published my book *World Resources and Industries.* While this book contains a good deal of factual material, the chief objective I had in mind in writing the book was not merely to impart information, but to contribute to a fuller comprehension and deeper understanding of the nature and meaning of resources than the literature extant at that time seemed to reveal. I had developed what I call "the functional theory of resources," and much of the factual material contained in my book is meant to illustrate, demonstrate, and prove that theory.

The reception of the book by social scientists, including prominent geographers, was generous far beyond all expectation. The functional theory of resources was welcomed as a contribution, as a *novum organon,* as one commentator put it. Through the years that generous response continued and was extended to later writings of mine in which I tried to develop and clarify my theory.

However, at just about the time that it was suggested that I might read a paper before this Conference, I happened to receive from an authority famous throughout this land and many others a lengthy—and I might add, very friendly—letter in which my functional theory of resources was attacked with savage gusto. It was a stroke of lightning out of a blue sky. The attack came as a great surprise to me, especially since it was provoked by a recent article in which I had restated my position and which had been highly praised by authorities as famous as my assailant.

The attack caused me to pause and wonder. "Did I have a blind spot which made me unable to see what to others seemed perfectly clear and self-evident? Was I going too far in my enthusiasm for functionalism? Was I pulling loose from the moorings of fundamental realities and floating anchorless in the rarified atmosphere of relativities? Was my assailant right, when to my claim that 'resources are not, but become,'

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*Before reading his paper, Dr. Zimmermann made a few introductory remarks designed to facilitate the understanding of this "Study in Methodology." Upon special requests from members of the Conference, those spontaneous remarks have been reconstructed from memory—not without some benefit of hindthought—and are herein included as Part I. Diagrams I and III were drawn on the blackboard; diagrams II and IV have been added to round out the discussion. Part II constitutes the paper as it was prepared for the Conference.

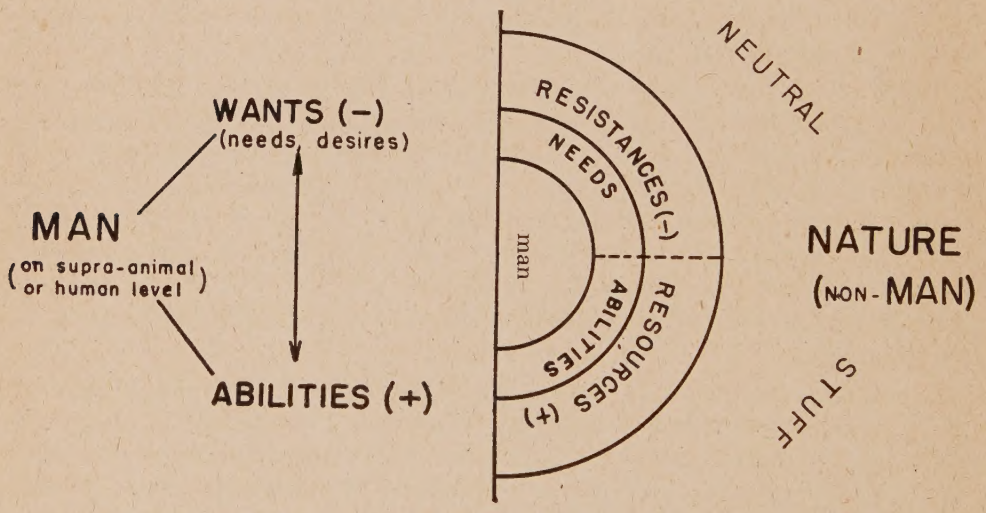
he hurled the thunderous reply 'but resources are, they are fixed, they are static!'?"

It was in this frame of mind that I chose as my topic for this Conference a re-examination of my theory against the background of developments in Latin America. Hence, I gave this paper on "The Resources of Latin America" the subtitle "A Study in Methodology." I reasoned that if my theory had merits, if it was basically sound, its application to the study of Latin-American resources should contribute toward the knowledge of those resources and, above all, aid in their effective appraisal. If my theory could not do that, if it failed to "hold up" under such a test, it was probably mere theorizing and my assailant deserved the victor's crown.

In developing my theory, I have had to coin some phrases, borrow phrases from other disciplines, and give new meanings to words in use. This rather novel terminology may somewhat impede the ready grasp of what I shall have to say in my paper. I shall, therefore, take a few minutes to familiarize you with some of this terminology and with the main outlines of my theory.

Let us begin with a simple diagram. [At this point Dr. Zimmermann drew the following diagram on the blackboard.]

DIAGRAM I



NOTE: Man, the animal, a part of NATURE, is distinguished from MAN, the supra-animal or human (social) being. "Neutral stuff" includes all aspects of NATURE beyond the experience of MAN. No significance should be attached to the particular form used to represent the relationship between needs, abilities, resources and resistances on the right or NATURE side of the diagram. Thus, concentric semicircles could have been used instead of halves of the same semicircle; halves do not imply equal magnitude; resistances could have been scattered through resources like "polka dots" or "smallpox," et cetera.

To understand resources one must understand the relationship that exists between MAN and NATURE. For that purpose it is necessary to conceive of the human being as existing on two levels, the animal

level and the supra-animal or human (or social) level. I use the form *man* to indicate the former and *MAN* to indicate the latter. Man, on the animal level, constitutes part of NATURE. MAN on the human level represents the counterpart of NATURE. NATURE is non-MAN. It is the cosmos insofar as it is unaffected by MAN. The sum total of changes wrought by MAN I call CULTURE.

Man, i.e., man on the animal level, existing without benefit of CULTURE, by virtue of his nature, i.e., his creature wants and his native abilities, is

(1) capable of drawing support from NATURE; e.g., oxygen from the air, water, wild food, situs, etc.;
(2) exposed to harmful forces and conditions found in NATURE; e.g., poison, wild beasts (including "human"), hostile elements, disease, etc.

Those aspects of NATURE which man can utilize in the satisfaction of his creature wants (without contributions made by MAN), I call natural resources. Those aspects of NATURE which harm or hinder man I call natural resistances. The extent of want satisfaction is a function of resources *and* resistances, not of resources alone.

Diagram I depicts the primitive situation which prevailed (theoretically) previous to the emergence of MAN, i.e., before man climbed to the level of the CULTURE-creating, supra-animal, human (or social) being we call MAN. In this diagram depicting the pre-CULTURE stage the right half only is active; the left half is dormant or potential. The only resources and resistances extant are natural resources and resistances as just defined. In this primitive stage man ekes out a precarious existence on scanty (natural) resources and in the face of formidable (natural) resistances. Unaided by CULTURE, the race grows slowly, the death rate being terrific. In fact, for ages the very existence of the race hung in the balance—a fact strangely repeated on the superlative level of the cultural achievements of the atomic age.

It should be noted that in this first diagram by far the larger area assigned to NATURE is labeled "neutral stuff,"[1] meaning that at that stage the major portion of the cosmos is neutral so far as man is concerned. It neither helps nor hinders. Man is hardly, if at all, aware of its existence. Man, as yet, knows nothing of Uranium 235 or electronics or enzymes.

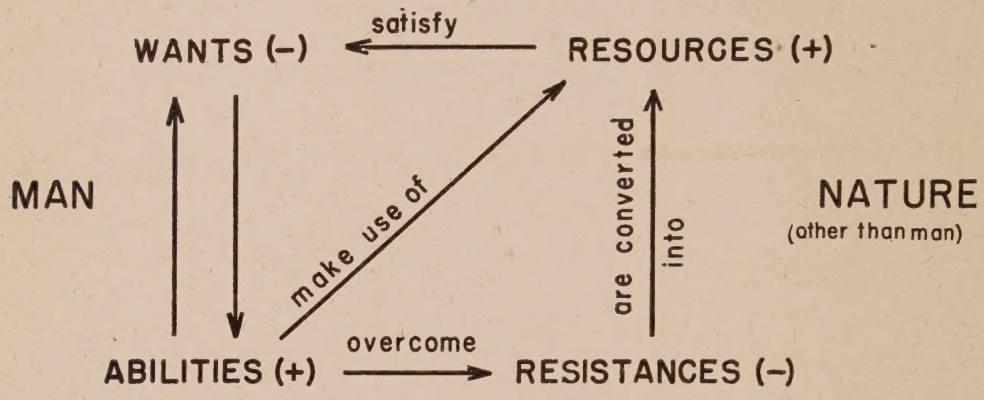
Attention is drawn to the + and − signs behind the terms wants (−), abilities (+), resistances (−), and resources (+). The basic idea suggested by these signs should be self-evident. They impart to the interrelationship of these factors something comparable to electrical

[1]This term is borrowed from the language of philosophy, and I am indebted to my colleague, Dr. David L. Miller, Professor of Philosophy, for having suggested it to me.

polarity, suggesting a circuit flow of forces somewhat like that shown in the following diagram.

DIAGRAM II

Showing the simple relationship between man and nature before the development of culture



Note the arrows between wants and abilities which suggest the inter-stimulation between these two factors.

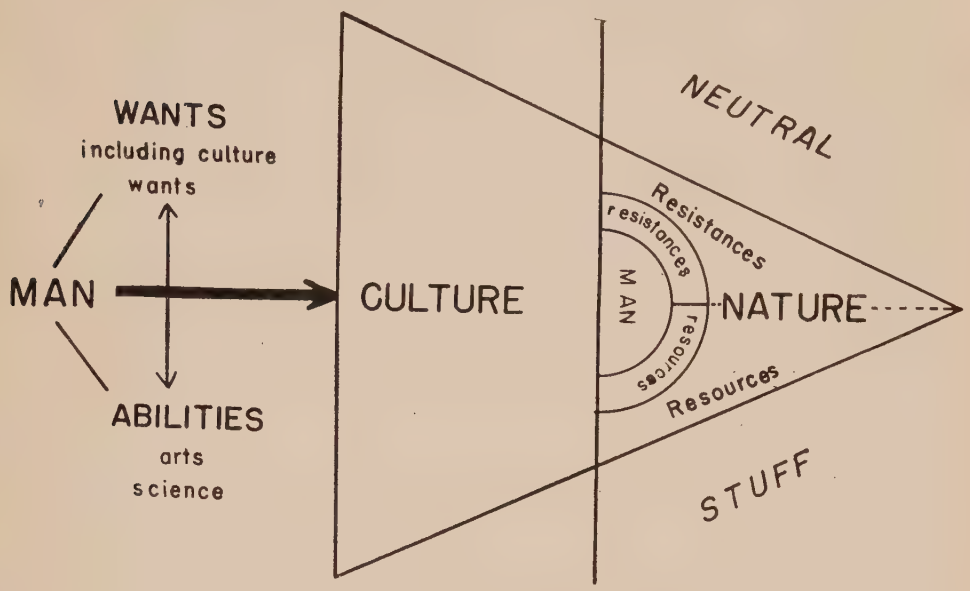
The relationship between man and NATURE changes radically when man, the animal, climbs to the supra-animal level; in other words, when he emerges as MAN and starts to tamper with NATURE by developing CULTURE. MAN thus emancipates himself from the limitations of *passive* adaptation which holds all other creatures in bondage. He learns to make fire, to build shelter; he invents and shapes tools, tills the land, domesticates plants and animals, harnesses the forces of nature; in short MAN learns to exercise the human prerogatives of *active* adaptation.

CULTURE feeds upon itself. Cumulatively it grows until it spreads over the earth like a film and reaches out even into stellar space. It is MAN'S spearhead or wedge which he drives ever deeper into the realm of NATURE as shown in the following diagram.

In driving this wedge into NATURE, MAN converts ever-widening segments of "neutral stuff" into resources, thus adding to, or substituting for, the meager supply of natural resources an ever-expanding supply of natural-cultural resources, joint products of NATURE and CULTURE.

In doing so MAN cannot help enlarging also the area of resistances. The farther MAN reaches out to the far corners of the earth, the greater becomes the resistance of space, the handicap of distance. The resistances of CULTURE grow apace as the structure rises to dizzy heights and as its complexity increases. At the same time MAN learns how better to overcome resistances both natural and cultural, but is able to do so only by devoting increasing portions of resources to the onerous task of overcoming resistances. In the process, some of the original natural resources (e.g., wild food) as well as older and obsolete cultural resources are reconverted into "neutral stuff."

DIAGRAM III



NOTE: MAN is an abstraction. In reality, most of cultural developments originate from social groups (tribes, nations, international groupings). This multiple-group origin of culture acts both as a stimulus to cultural progress and as a cause of friction. To show this multiple-group origin in the diagram would have made the representation unduly complex.

Not the least important segment of NATURE which thus comes under the impact of CULTURE is man himself. Even his most basic instincts may be subjected to its influence. The first effect of expanding and improving CULTURE on the size of human population is rapid increase, even an accelerated rate of increase; but in due time "planned parenthood" puts on the brakes. First the rate of increase declines and later even the population itself decreases.

It would be a grave error to conclude that *all* culture *always* makes for progress. There is such a thing as cultural aberration. Both World Wars were started by a nation boasting high cultural levels. Moreover, even CULTURE obeys the "law of diminishing return." As it increases in complexity, it becomes less transparent, and the danger of misdirected efforts increases. Also CULTURE breeds its own resistances.

An equally serious mistake would be to assume that just because man has become MAN and because CULTURE affects NATURE, MAN has "conquered" NATURE. As a glance at a world map showing the distribution of the human race on the face of the earth clearly shows, NATURE'S veto power is hardly impaired. MAN still crowds on selected areas, shunning the excessive heat of the tropics hardly less than the excessive cold of the polar regions, the excessive humidity of the tropical rain forest hardly less than the drought-stricken desert, etc. But the same map also shows that the great grasslands—the steppes and

the pampas, the pustas and the prairies—practically uninhabitable before the railroad, have become the granaries of the human race. It is also well to remember that CULTURE is still a relatively new phenomenon on this planet and that nuclear energy *may* accelerate the tempo of its growth.

As an aid to showing the interactions between the main elements here discussed, one more diagram is added—Diagram IV.

I shall briefly summarize what I have been trying to stress in this introduction.

I. I have explained briefly some pertinent terms and phrases including: MAN as distinguished from man; NATURE and CULTURE; resources, resistances and neutral stuff; natural and natural-cultural resources and resistances; natural, cultural and human aspects of resources and resistances.

II. I have tried to present the highlights of my "functional theory of resources" including the following:

a. The resources of man.

1. Man, existing on the animal level, like other animals, must, by and large, adapt himself passively to his environment; i.e., he must change his physical self; his capacity to practice active adaptation, i.e., to change his environment, is limited to what his static genus technique permits him to accomplish.
2. The resources of man are natural resources in the sense that they are furnished by NATURE of which man himself is a part, but a minor part. Static genus technique does not go far either in developing resources provided, or in overcoming resistances put up, by NATURE.
3. Natural resources are static so far as man is concerned. Natural resources change through the ages as NATURE passes through slow processes of change—recession of ice cover, changes of climate, variation of species, including man, etc.—and are subject to sudden changes through natural catastrophes.
4. The natural resources and resistances of man constitute a narrow fringe of the vast desert of neutral stuff.

b. The resources of MAN.

1. MAN, the human being, unlike any animal, is capable of active adaptation far beyond the limits set by static genus technique. By inventing arts individually and by creating, through social processes, CULTURE, the cumulative heritage, MAN is capable of (1) overcoming natural resistances far more effectively than man is able to do, and (2) converting ever wider segments of neutral stuff into resources.
2. Resources, so converted by MAN from neutral stuff, are not natural resources but natural-cultural resources.

DIAGRAM IV

RESOURCES, RESISTANCES AND END-VALUES

NATURAL ASPECTS ("Land")	CULTURAL[1] ASPECTS ("Capital")	HUMAN[1] ASPECTS ("Labor")
RESOURCES OR MEANS		
I Factors of Production		
(a) Primary or Original		
Free gifts of nature		Native abilities and drives
(b) Secondary or Derived		
Aspects of nature which become available for use by man as a result of improvements made by man—improvements in nature as well as in himself.	Instruments of, and aids to, production such as tools, engines, machines, factories, residences, cities, ports, canals, railroads, highways, dams, power lines, cables, telephone and telegraph lines, radio, television, irrigation, drainage, improved strains of useful plants and animals, improved soils, surplus funds, etc.	Human capacities developed through education, training, experience, improved health, etc.
II Conditioning Factors		
(a) Primary or Original		
Aspects of nature such as climate, topography, location, configuration, etc., in so far as their conditioning force is unaffected by man.		Social attitudes, favorable to 'living together'.
(b) Secondary or Derived		
The same conditioning aspects of nature listed above in so far as their conditioning force is affected by man.	Facilitating agencies of commerce and finance; social institutions such as government (law and order, justice, public health, postal service, etc.), church, school, *mores*, state of the industrial arts, credit, accumulated knowledge, ethics, level of morals, etc.	Constructive labor attitudes, management attitudes, labor-management relations, aspirations.

INSTRUMENTAL WEALTH

RESISTANCES		
I Direct Obstacles		
(a) Primary or Original		
Catastrophes such as storms, floods, tidal waves, earthquakes, pestilence, drought, insect pests, disease, poisonous plants and animals, etc.		Human failings such as 'cussedness,' lack of foresight, mismanagement, failure to comprehend complexities and multiple correlations; ignorance, stupidity, greed.
(b) Secondary or Derived		
Denuded mountain sides, erosion, silted and polluted streams and harbors, depleted mineral reserves, lost strains of fauna and flora, ecological disturbances, etc.	"Bad capital" resulting from miscalculation or erroneous appraisal; obsolete equipment not yet written off, etc.	Human difficulties resulting from the complexities of modern industrial civilization; warped judgment; "false Messiahs."
II Indirect Handicaps		
(a) Primary or Original		
Distance, topographical and locational obstacles, unfavorable distribution of raw materials and energy sources, climatic handicaps, etc.		Population densities below or above the 'optimum,' unfortunate distribution of population relative to changing opportunities, age composition unfavorably affecting productivity.
(b) Secondary or Derived		
The handicaps listed above in so far as they are aggravated by cultural impacts.	'The dead hand of the past,' vested rights, threats from stronger neighbors causing diversion of instrumental wealth into unproductive channels; business cycles, depressions; abortive policies.	Racial conflicts; class struggle; war.

ILLTH

OBJECTIVES or END-VALUES

"Life, Liberty, and the Pursuit of Happiness"
Atlantic Charter . . . "The Four Freedoms" . . . Philadelphia Manifesto
Liberty, Security, and Human Decency

"The only *final* value is human life, or rather human living, with all its richness and fullness of experience. This, I take it, is what Ruskin meant when he exclaimed, 'There is no wealth but life!' The *intrinsic* values comprise the things which constitute the positive content of living, the things we desire for their own sake—work and play, love and friendship, hearth and home, and so on, together with such general conditions as peace, security, liberty, and opportunity. The huge class of *instrumental* values includes all our material wealth of whatever kind, all our technological knowledge, all government, and all the economic processes of production and exchange. In fact *all* social institutions belong in this category of instrumental values—*means* to something nearer to the heart of man."

ALBERT B. WOLFE

Presidential address delivered at the Fifty-sixth Annual Meeting of The American Economic Association, Washington, D. C., January 21, 1944, published in *The American Economic Review*, Vol. XXIV, Number One, March, 1944, p. 2.

REAL WEALTH

[1]To some extent, the division into human and cultural is artificial. There are two elements of distinction which led to the division here made:

(1) human resources are applied *ad hoc*; they are perishable; they must be used while they are working; cultural resources are lasting assets; they accumulate through the ages.

(2) human resources, though aided perhaps by culture, are solely associated with human beings; cultural resources are joint products of MAN and NATURE.

*For a fuller discussion of this diagram see the present writer's "What We Mean by Resources," Chapter I of *Texas Looks Ahead* by members of the Faculty of The University of Texas, 1945; and "Resources—an Evolving Concept," In *Proceedings, Texas Academy of Science*, Nov. 1944.

3. Natural-cultural resources are not static, but highly dynamic functions of equally dynamic human volition and of CULTURE.
4. The resources of twentieth-century Latin America are predominantly natural-cultural (not natural) resources and as such are highly dynamic. Their study must proceed not through physical geography alone, but through geography plus technology plus economics plus sociology plus business plus politics—in short, through the study of both NATURE and CULTURE.[2]

Part II

When we here in the United States of North America think of Latin-American resources, our first thoughts are likely to be of Brazilian coffee and rubber, of petroleum from Venezuela and Colombia, of Mexican silver and tourists' souvenirs, of bananas from Costa Rica and Panama, of Argentine wool, linseed, and quebracho, of Chilean copper, nitrate and wine, of Bolivian tin and so forth. Like most people, we are thing-minded. So naturally our first thoughts are of things. Moreover, our awareness of Latin-American resources derives largely from our trade with Latin America. Hence our first thoughts are of the things we import from Latin-American countries.

One might conceivably follow up this first impulse and try to prepare a catalogue of all the goods we buy from Latin America. But that would be tedious and take too much time. Encyclopedic completeness may be considered a virtue in the case of a commercial gazetteer, but hardly in the case of a scientific paper worthy of its name.

What is far more important, such a list of import commodities, while throwing an indirect light on Latin-American resources, is a very superficial approach; it falls far short of telling the whole story. For, in the first place, imported commodities are the products or results of foreign resources, not the resources themselves. They are the fruit, as it were, from the resources tree. And one hardly knows the tree if one only knows the fruit. In the second place, no matter how important foreign commerce in general, and trade with the United States in particular, may be for Latin-American countries, its study, if limited to the things traded, provides but a partial insight into the social and economic life of Latin-American countries and, therefore, only a limited view of their resources.

The resources of a continent, or of a nation for that matter, are the basic assets upon which peoples depend for their living, for their destiny as nations and as individuals. They are the basic conditions and circumstances, the productive forces and creative values which are at the

[2]The distinction between man and MAN has served its purpose; it is no longer needed in Part II which deals only with man on the supra-animal level.

disposal of the people and which determine their level of living and their place in the family of nations. They are the sum total of factors affecting the security and welfare of the people.

Thus climate and soils belong into an appraisal of resources, as do minerals in the ground, capital equipment such as railroads and ports and factories, the machinery in the factories. But we must go on and include the hands and minds willing to work, skillful hands and trained minds, and organizing ability and the courage to risk and dare, and teamplay and good government, constructive human attitudes and social institutions promoting harmony and progress, and so on, until there arises before our minds a magnificent structure of civilizational effort, a complex *gestalt* composed of natural, cultural, and human forces, substances and conditions, which, working in purposeful combination, constitute the resources of a country.[3]

But climate can be unfavorable and hinder or even prevent agricultural pursuits; soils can be barren; minerals can be so lean, lie so deep in the ground and be so far removed from the point of use that exploitation does not pay. Social institutions can block progress, governments can hamper enterprise, and so down the line. The very forces which, at one time and in one place, may appear as resources, at another time and in another place may constitute resistances, or else they may drop back into the ocean of "neutral stuff" whence they emerged in the first place. In most cases resources and resistances occur side by side and a large share of resources must serve the onerous task of overcoming resistances. What is left of resources after that is accomplished are net resources; i.e., resources which serve human welfare directly.

Therefore, no thing can be a resource as such, not climate *per se*, nor soil *per se*, nor people *per se*, nor institutions or capital goods *per se*. They are resources only if and so long as they function in purposeful combination to produce utilities or values. Utilities or values, in turn, assume or presuppose a human want, a need, an objective to be attained —hunger stilled, thirst quenched, protection from rain and cold, profit, opulence, security, comfort, peace, some end that men strive for and for

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[3]Space does not permit a full development of my "functional" theory of resources. Those interested in following up this line of thought are referred to:

1. *World Resources and Industries*, Chapters 1-3, esp. pp. 3-4 and *passim.* Harper and Bros., New York and London, 1933.
2. "Resources of the South," *Southeastern Quarterly*, summer, 1933.
3. "Natural Resources" in the *Encyclopaedia of the Social Sciences.*
4. "Resources," Chapter 7 in Spahr, *et al., Economic Principles and Problems*, Third Edition, 1936.
5. "What We Mean by Resources," Chapter 1 of Volume I *(Resources of Texas)* of *Texas Looks Ahead*, 1944.
6. "Resources—an Evolving Concept," *Proceedings, Texas Academy of Science*, November, 1944.
7. "Lo que Debemos Entender por Recursos," *Investigación Económica* (Mexico), Vol. V, No. 4, 1945.

the attainment of which they are willing to work, to plan, to scheme, to sacrifice. Nature offers or denies opportunities to satisfy these wants. But, in general, stuff found in nature is mere "neutral stuff." Only man can convert the "neutral stuff" of nature into resources—man with his wants, and arts, and skills, and culture. "Neutral stuff" is converted by man into resources or into resistances when and where man seeks to obtain from nature, generally with the aid of culture, the things he needs to satisfy his wants or to attain his group objectives.

In Brazil there are uncounted square miles covered with babassu palms producing perhaps enough vegetable oil to satisfy all human need for edible fats and oils. But these palm stands are inaccessible. To call them resources would be a fantastic error. They are useless. They are "neutral stuff." Only if and when the time comes when the exploitation of these palms pays, may they properly be referred to as resources.

Resourceship, i.e., the availability for human use, results from the purposeful combination of natural, cultural, and human aspects working so effectively that human wants can be satisfied at a cost below the price set by the intensity of the want.

Most resources are exploited commercially. It is proper, therefore, to use the language of the business man in making clear the process by which "neutral stuff" found in nature is converted into resources. The case of rubber offers a good example. Rubber from the Amazon region had been known to people in the West for centuries. But little could be done with it until in 1839 Charles Goodyear discovered vulcanization. Rubber was now ready to serve useful ends, to satisfy essential human wants. Before long business concerns sprang up ready to manufacture and sell articles made from vulcanized rubber. The difference between the price the consumers of these articles were willing to pay and the manufacturers' processing costs set the price which traders could pay for Para rubber gathered from *hevea* trees growing wild in the jungles of the Amazon Basin. This price in turn determined how many natives could be induced to take up the arduous task of gathering latex in the jungle and preparing it for the market; this price determined how wide were the areas that could be tapped. In short, the demand of the people in the United States and elsewhere for goods made of vulcanized rubber governed the process by which "neutral stuff" provided by nature in the wilds of the Amazon region could be converted into the rubber resources of Brazil.

It is well to stress the importance played by Goodyear's invention in this development. For, in this age of machine industry and science, it is the inventor and after him the technologist who usually opens up the opportunity for the risk-taking business man, the entrepreneur, to set the actual resource-creating process in motion. But it is invention and technology plus business enterprise plus the market demand plus the laborers plus the capital equipment plus the social and political institutions governing international trade and regulating human relationships

both within and between countries which constitute the resource-creating set-up in its entirety. Not only are all parts needed, but there must be the proper balance between all the parts. The Law of the Minimum[4] and the Law of Factoral Proportions govern.

Another example. In the Brazilian State of Minas Geraes there exist some of the largest deposits of iron found anywhere in the world. They have been there for millions of years—they have been known in a more or less general way for a long, long time. In fact, a Belgian by the name of Monlevade as early as 1860 started exploiting Brazilian iron deposits on a small scale using charcoal. But it is only within the last decade that a truly modern industry using this iron is being developed. Why this long delay? Why did the world ignore so long one of the richest prizes offered by bountiful nature? And why did at last the hour of action strike?

People—that means in this case mainly the steel makers in the great industrial centers of the United States, Great Britain and Germany—were very much aware of these vast and rich iron deposits. In fact, some of them secured options and otherwise assured themselves of a share—if and when this "neutral stuff" should ever "ripen" into resources, i.e., become usable agents of want satisfaction. But apart from limited local use, the time was slow in coming. For in the first place there was no coking coal within reach with which to smelt the ore. In the second place, the deposits lay far enough inland to place them out of reach for the time being. Then came the Good Neighbor Policy and with it loans from Uncle Sam to the government of Brazil and expert advice on the ways of building a modern steel mill. Thus Volta Redonda, the steel works of the National Steel Company of Brazil, rose in the valley of the Paraiba River back of Rio de Janeiro, and the iron deposits of Minas Geraes became ore, and ores are resources. And an old railroad running through the fever-ridden valley of the Doce River to the port of Vitoria was modernized and the valley made livable, and thus the stage was set for Itabira[5] iron to become ore, to be shipped overseas, in return perhaps

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[4]"by the deficiency or absence of one necessary constituent, all the others being present, the soil [the whole] is rendered barren for all those crops to the life of which that one constituent is indispensable."

[5]Parenthetically I may add that it is argued by at least one authority that "in leading to the development of Itabira as a resource, the depletion of North American ore bodies is probably a potent factor." In this view I do not concur. In speaking of the depletion of North American ore bodies, reference is to "high-grade ore." Judging from discussions in the industrial journals, the almost unlimited reserve of lower-grade deposits in this country is viewed as the national "second line of defense" of the North American steel industry rather than distant oversea reserves. Bethlehem Steel, the chief United States steel producer dependent on overseas ores, is now drawing on Cuban, Chilean and Venezuelan ores, all of which lie closer to tidewater than does Itabira. Bethlehem is also reported to own large iron reserves in Mexico, near the Pacific coast. The reported discovery of vast high-grade iron deposits in Labrador throws further doubt on the theory advanced above.

for coke for Volta Redonda. Thus Brazilian iron deposits, for long mere "neutral stuff," became Brazilian iron resources.

What did it take to achieve this conversion from "neutral stuff" into resources? First, the Good Neighbor Policy, reflecting political interests and peoples' attitudes and understandings between their governments. Second, it took capital in the form of credits and in the form of machine equipment and "know how"; third, it took labor able and willing to work and that, in turn, ties up with decades of labor legislation and with wage policies and social security. Fourth, it took a domestic market for Brazilian-made steel products, subsidized by a government anxious to own its steel works and willing to pay the cost differential of Brazilian production over the world market price. Fifth, it took a foreign market for Itabira ore and that, in turn, was created by World War II. Sixth, it took modern sanitation to rid the Rio Doce Valley of its fevers. Above all, it took modern technology to perform one miracle after the other, along the line from ore to blast furnace, to Siemens converter, to Koppers coke oven.

One more case: Chuquicamata, the copper mine and smelter of the Chile Exploration Company, a subsidiary of Anaconda. Chuquicamata is on the northern outskirts of the Atacama desert in northern Chile. Geologists had long been aware of the fact that certain mineral formations in that part of the country looked promising. But until the Panama Canal was built and opened for commercial traffic at the end of World War I, northern Chile was a very inaccessible place. Potential investors, therefore, held back, and capital for serious exploration was not available. The opening of the Panama Canal broke that spell. Chile was brought within the reach of large markets for copper, and the Guggenheims provided the funds needed not only for exploratory purposes but also for the discovery of new processes by which the discovered ore bodies could be converted into copper. It took large sums, but the results were nothing short of miraculous. What only a short while back had been one of the most inaccessible and useless spots on the face of the earth, by the application of daring and imagination and scientific knowledge and human labor and capital goods, was converted into one of the most valuable resources anywhere. But it meant building a power plant at Tocopilla on the coast which converts imported fuel oil into electricity transmitted over a long power line to the mine and smelter. It meant building vast aqueducts to bring water from the Andes. It meant railroad sidings, a town for the workers. In short, practically all the paraphernalia of modern industrial civilization had to be created. Arrangements had to be made with the government regarding taxes, wage payments, etc.

The story could be told over and over again. It has many variations but the theme is always the same. Resourceship stems from the purposeful interaction of natural, cultural and human aspects primed and kept going by demand based on availability for use.

But the theme has its counterpoint melody. The process can be reversed. Not only does modern science and technology backed by wants and needs create resources; it can also destroy resources and reconvert them into "neutral stuff." The case of Brazilian rubber comes to mind. Getting wild rubber out of the Amazon jungle is expensive. Not only is the jungle itself rather inaccessible but the *hevea* trees occur widely scattered, only a few to the acre. When the possibilities of the rubber tire were first recognized, it became apparent that the supply of wild rubber would prove inadequate in amount as well as too costly; in short, it would constitute the bottleneck of the rubber goods industry in general and of the tire industry in particular. The answer was the rubber plantations of the Middle East—Ceylon, Malay Peninsula, Straits Settlements, Dutch East Indies, etc. The European owners of these plantations were not satisfied with merely transferring *hevea* seedlings, but, with the aid of modern genetics, they succeeded in breeding new varieties of rubber trees, infinitely more productive than the wild trees of the jungle. Thus cost was brought down to a mere fraction of the Brazilian figure, and the daughter industry squeezed the mother industry off the world market until Brazilian rubber resources were little more than a memory. How then during World War I Germany, cut off from world supply, managed not only to develop efficient methods of reclaiming used or secondary rubber but also discovered ways of producing rubber synthetically, and how in World War II synthetic rubber production reached dimensions which completely dwarfed even the peak figures of earlier Brazilian output, is a story too fresh in the memory of all now present to warrant repeating.

The nitrate industry of Chile is almost an exact parallel. First it was Freiherr Justus von Liebig whose revolutionary discoveries in the field of soil chemistry endowed the useless caliche found back of the coastal range of northern Chile with truly miraculous values and thus created the nitrate resources of that country. Then it was the introduction of the Koppers by-product coke oven which, by yielding vast amounts of competitive sulfate of ammonia as a by-product of coke, progressively weakened the market position of Chilean saltpeter. Finally it was Fritz Haber and others whose successful extraction of nitrogen from the air came close to delivering the *coup de grace* to the nitrate industry of Chile. It was only when Guggenheim capital and Yankee "know how" came to the aid of the stricken industry that its survival in much reduced size was assured.

The white potato is a native of the Andean country, but the real potato resources of the earth are now found on the plains of Europe stretching from England to the Ural mountains. Corn, in its native habitat of Mexico, yields 6 bushels an acre; in Iowa 30 to 60. Cinchona, the source of quinine, likewise a native of the Andes, is produced in far larger amounts in the Dutch East Indies and elsewhere. What atabrin or its

improved successor will do to the cinchona resources remains to be seen. Cacao, once a virtual monopoly of Ecuador, has experienced a shift of its chief center of production from South America to West Africa. Other examples such as dye stuffs like cochineal and hematoxylon and tanning agents like divi divi could be mentioned. As civilization advances, the power of nature over human affairs is by no means eliminated; but, within outer limits set by nature, man gains increasing control over his devices. Culture gains over nature as a resource-creating agent.

All the cases cited go to prove the same basic fact: resources *are* not, they *become*. They are not static but expand and contract in response to human wants and human actions. In the examples given above two forms of human action were most prominent or potent: technics and business enterprise. But there are other forms of human action which at times become determinant as resource-makers or destroyers, overshadowing the influence of the inventor and the entrepreneur. One of the most important of these other forms is governmental policy. To illustrate this point the experience of the petroleum industry in four countries of Latin America may briefly cited.

The first Latin-American country in which a large modern petroleum industry was developed was Mexico. It began soon after the turn of the century. In twenty years exports rose to 193 million barrels, over a fifth of the world crude oil output in 1921. After that the output curve begins to waver and then goes into a tailspin. After World War I the big oil companies turned their attention to Venezuela, and in less than twenty years the output of Venezuela passed the 200 million barrel mark. The Colombian situation is different. Crude oil production in that country is marked by sudden spurts and equally sudden setbacks. The output never exceeded 25 million barrels. Finally then to Bolivia. After Standard Oil interests, through years of work and with the aid of millions of dollars invested, had almost brought that country to the point where it could take its place among the crude oil producers of the world, something snapped and Standard Oil preferred sacrificing vast sums invested to continuing under the new rules laid down by the government of Bolivia.

Without pretending to know the answers to all the riddles of the international petroleum business, it can safely be said that what this brief account of the oil industries of four Latin-American countries shows is this: (1) the exploitation of oil fields requires vast amounts of capital, especially in the tropics where sanitary conditions and the basic minima of human existence must be created *ad hoc* and where frequently lengthy pipe line construction materially adds to the expense; (2) the market for crude oil is at the refineries which convert the crude into marketable products and most of these are located outside of Latin America; moreover, the market for refined products in turn is found chiefly in the industrialized countries of the northern hemisphere—in short, generally speaking, also outside of Latin America; (3) the possession of technical

"know how" and the general scientific background are largely confined to the advanced industrialized countries; (4) under these circumstances most of the oil fields of Latin America can be developed on a large scale and on an efficient basis only by foreign capital; (5) therefore, if foreign oil companies are willing to risk vast sums of money in Latin-American oil fields, they require a reasonable assurance that their investments are safe from unpredictable and irresponsible political interference; (6) laws, political attitudes, and government policies, therefore, become, along with basic geological and geographical facts, the strategic factor in determining which oil fields of Latin America will be converted, by foreign capital, from useless "neutral stuff" into the most coveted resource of modern times.

To complete this picture of Latin-American resources, it is necessary to go still further in search of the stimulus which awakens inert nature to the status of actual resources. One must reach beyond the range of modern technics, of business enterprise, of government policy. For even the primitive denizen of the jungle who knows nothing of modern technics, modern capitalism, or modern national government and even the simple village folk who live off the highroad of world commerce, perhaps in the Andes or in the mountain fastnesses of the Sierra Madre Occidental, have resources. They too play the game of converting "neutral stuff" into resources. Only they play the game on a far more modest scale, within the confines of far smaller areas, and in a far less efficient manner. Basically, however, their procedure is the same. Prompted by want and finding the supply of free gifts of nature both scanty and unreliable, they too apply labor and capital to selected aspects of "neutral stuff" found in nature. They too choose the path of least resistance. Their technique of choosing is simple and direct. It lacks the refinement of modern market mechanisms and of pricing systems. But whether they know it or not, they too obey the law of diminishing returns; and unaware of such sophistications of the west, they too follow the rules of marginal utility and marginal productivity, at least in a general fashion.

It is indeed a far cry from the simple resource set-up of a primitive jungle dweller in the Amazon Basin to the grandiose resource apparatus of a U. S. Steel, an Alcoa, a Standard Oil or an United Fruit Company. The difference spells a thousand years of human struggle. Between these two extremes, there are found many gradations. There is the semi-feudal agriculture in the valley of Middle Chile and the communal agriculture of the Mexican *ejido*. There are commercial and industrial enterprises strictly limited to a small locality; there are others drawing on wider areas for support and reaching wider markets—regional, statewide, interstate but intranational, nationwide, international but intracontinental, and finally global.

Seen in this light, the resources of Latin America may be viewed as forming a vast pattern of overlapping circles or circuits, ranging all

the way from the tiny circle of the primitive jungle dweller to the global circle of international trade, industry and finance.

Yet, no matter how widely the ways of men may differ, the basic pattern is the same. Always man, feeling a need, a desire, and a want, and endowed with innate abilities, no matter how modest, faces a vast store of "neutral stuff" found in nature. At first he relies on nature's free gifts, but they are few and often surrounded by a thorny hedge. At that stage nature looks barren; it appears niggardly. It is only when man grows in stature, acquires knowledge, develops arts and builds up cultural aids that the full glory of natural opportunities unfolds itself before man and that serious obstacles can be overcome. As Ashbel Smith eloquently said, perhaps when the cornerstone of this university was laid, "Strike the rocks with the rod of knowledge, and fountains of unstinted wealth will gush forth."

Whatever the radius of the circle, the process of resource creation is the same. The basic building blocks are the same. They are four: (1) nature, (2) human need or want, including social objectives or group needs, (3) culture, and (4) man's current *ad hoc* effort, i.e., his labor and ingenuity directly applied to the task at hand.

A few general remarks commenting on these four elements appear proper.

(1) Nature. It is axiomatic that man cannot dig coal where there is no coal. Ordinarily man cannot grow crops without soil and water and sunshine. In other words, the physical presence under satisfactory conditions of the stuff out of which want-sating goods can be made is the first prerequisite. It may be worth while to add, though, that the mutation of elements is rapidly progressing in the laboratory and that the mastery of nuclear energy will materially reduce man's dependence on the older and slower processes of nature.

(2) Human need or want. Since most wants or needs are reflections or functions of culture, the second and third points—wants and culture —will be discussed together.

Man has certain basic creature needs which he must satisfy if he wants to survive and continue his kind. Man must eat and drink and must protect himself against cold, heat, rain, and enemies; he must sleep and so forth. Primitive man has few if any wants other than these basic creature wants. So limited are his cultural achievements that he must more or less let nature dictate to him his menu of resources. In the passivity of his adaptation to his environment, such a man is but little removed from the plant or animal. As civilization advances and as the cultural heritage of the social group grows cumulatively, man's wants multiply; to the basic creature wants are added culture wants. Moreover, as the social order grows in complexity, definite social objectives appear which, at times, conflict with the satisfaction of individual wants. Through culture man learns to emancipate himself—not from nature—but from

the stranglehold she has on primitive man. His adaptation becomes more and more active. If he bows to nature, it is because he rationally chooses to yield.

Latin America is a land of ancient and rich cultures. It is a land where two or three layers of sharply differing cultures are found superimposed one on the other or next to each other in close proximity. This richness of culture patterns may be a source of strength where successful blending yields a new culture alloy; it may be a handicap where heterogeneous cultures are at loggerheads. The availability of resources in Latin America definitely reflects this state of affairs. Resources abound where culture thrives on harmony; they are scarce where culture is stifled by conflict.

In this age of modern machine industry no phase of culture appears to be more important than power machinery and scientific knowledge, organized into large industrial enterprises. History teaches us that, as a rule, capital accumulates but slowly in agricultural countries; it ordinarily accumulates far more rapidly in industrial countries. Since, until the very recent past, Latin America was predominantly an agricultural region, interspersed with foreign-owned mining and industrial enterprises, capital in Latin America accumulated slowly. It was inevitable, therefore, that in the development of those industrial enterprises which required heavy capital investment, foreign capital played a prominent, if not dominant, role. This held true very generally in the fields of minerals—petroleum, gold, silver, copper, lead, zinc, tin, nitrate, beauxite, vanadium, etc. While Latin-American nationalism was still in its formative stage, this alien encroachment upon, and use of, national wealth was not seriously resented. Moreover, it constituted more or less an *imperium in imperio*. It did not actively concern itself with the social welfare of the native population. The foreign enterprises constituted as it were *exclaves* of foreign civilizations. The resources so developed were resources *in* Latin America, but hardly resources *of* Latin America and seldom resources *of* Latin Americans, though some Latin Americans were silent partners or beneficiaries. But in general there was little contact.

Under pressure of rising nationalism and of increased social consciousness, some of these foreign holdings were lost; others were compelled to integrate more closely with the body social, economic and politic of the country in which they were domiciled. In some cases this development was encouraged by a friendly foreign government. The National Steel Company of Brazil at Volta Redonda is a case in point. Altos Hornos, a new steel works in northern Mexico, is another one. Nothing will affect the development of Latin-American resources more than the manner in which this problem of foreign investments in the midst of rising nationalism is solved.

(4) This brings us to the fourth and last basic factor affecting Latin-American resources—the human factor. Latin America has a population

about as large as that of the United States. But, for reasons of ethnic background, of geography and of history, this comparability of numbers by no means reflects a similar comparability of human resources. A large portion of the people of Latin America are still suffering from age-long civic neglect. As yet only a minority may be considered full-fledged beneficiaries of the economic system. To be sure, such conditions also exist elsewhere, but the contrast between America north of the Rio Grande and Latin America is rather sharp. Poverty and disease are widespread, cutting down initiative, enterprise, and productivity. The resulting low average purchasing power, coupled with the division of Latin America into more than a score of politically independent units, robs Latin America of one of the most vital and more potent resource-building forces—a large market.

It should hardly be necessary to point out that Latin America does not constitute a homogeneous regional entity, but is instead little more than a rather loose aggregate of units which are as independent economically as they are sovereign politically. Even a single country like Brazil does not constitute an organically correlated whole. It is little more than an aggregate of clusters separated by economic if not political "no man's land." Argentina, largely a white man's country settled after the introduction of the railroad, is quite different from most Latin-American countries populated by diverse racial groups and looking back on a long colonial history.

Under these circumstances little can be said, beyond broad general observations, which applies with equal or even similar weight to all parts of Latin America. It is for that reason that this paper is called a study in methodology. It concerns itself less with Latin-American resource actualities themselves than with the proper approach to these actualities. The application itself will have to be made country by country, region by region.

It may be legitimate, however, to ask what this paper yields in terms of practical lessons. The salient points appear to be as follows:

(1) It was shown that nature does set outer limits to human capacity to convert "neutral stuff" into resources. It is wise to be aware of these limitations and not to run one's head against a stone wall. There are times when man must "stoop to conquer." This suggests regional specialization, but not in the narrow static sense of short-run market economics but in the broad dynamic sense of long-run resource economics.

(2) In our age far more than formerly the productivity of man does not solely depend on individual vigor, skill, and wisdom. It is contingent on orderly group life, on a social order that encourages effort, on sound social and political conditions based on justice and human decency. Whatever promotes these conditions promotes the creation of resources.

(3) For a long time to come Latin America must depend for a considerable part of its new capital equipment on the outside, especially on

the English-speaking countries. It is vital, therefore, that a sound basis of understanding is reached between borrowers and lenders, looking to the promotion of general welfare on both sides.

(4) Within the limits set by nature there lies a wide and sunny land of opportunity where man's creative effort has full play. How man avails himself of this opportunity depends on him. No greater contribution, therefore, can be made to the development of Latin-American resources than the strengthening of the human factor through education, technical training, better health and fuller participation of all in the responsibility for progress and in the rewards that progress brings.

POPULATION TRENDS AND POLICIES IN LATIN AMERICA

KINGSLEY DAVIS

Office of Population Research, School of Public and International Affairs, Princeton University

Today, from a strictly demographic point of view, Latin America[1] is one of the world's most fortunate regions, for it has a relatively small population living in a large and promising area. But, economically, it is not so fortunate, because in capital accumulation, manufacturing enterprise, and per capita income it lags far behind the leading industrial areas. A big question, then, is whether or not the economic situation can be so improved as to make the most of a good demographic position.

The small number of people in relation to potential resources itself favors economic improvement. But how long the population will remain small is quite uncertain, for it appears that at present the population of Latin America is increasing faster than that of any other major region. Certain questions must, therefore, be raised: How long will this rapid increase continue? How will it affect, and be affected by, economic development? What aspects of it should government policy consider? An adequate answer to these questions would require more information than the sketchy Latin-American statistics provide, but enough can be learned to make the inquiry worth while.

Population Density

With a 1946 population of approximately 146 million, Latin America has overtaken the United States, which now lags behind by about six million. Yet the density of settlement in the southern region (17 per square mile) is much less than ours (46), and much less than that of the rest of the world (47). Whereas Latin America embraces 16 per cent of the world's inhabitable land area, it has only about 6 per cent of the world's population. Except for Africa and Australia, it has a lower density than any other major region. Asia (excluding the USSR), with a population of almost 1.2 billion, has an over-all density nearly seven times that of Latin America.

It is well known, however, that the density of settlement in the countries to the south is exceedingly uneven, as Tables 1 and 2 both demonstrate. The Caribbean archipelago is by far the most thickly inhabited subregion. With more than five times the density of the next region (Middle America and Mexico) and more than three times the density of the United States, it is the only subregion already suffering from serious

[1] By "Latin America" is meant, here at least, all of the region in the Western Hemisphere lying south of the United States. The term is not strictly accurate, but no better single designation seems available.

population pressure, *i.e.*, where the number of people tends to impede a rise in living standards. There are possibly one or two other countries (*e.g.*, El Salvador)[2] where the same is true, but none of them can match Barbados, Puerto Rico, or Haiti in this respect. The Antilles can hardly absorb an expanding population without either lowering the already wretched standard of living or accomplishing an economic revolution.

Table 1

DISTRIBUTION OF WORLD'S POPULATION AND AREA BY MAJOR REGIONS, AROUND 1940*

	POPULATION		AREA		DENSITY
	Number (000's)	Per Cent	Square Miles (000's)	Per Cent	(Per sq. mile)
WORLD	2,173,576	100.0	51,118	100.0	42.5
Europe (excl. USSR)	402,000	18.5	2,079	4.1	193.4
Asia (excl. USSR)	1,154,000	53.1	10,348	20.2	111.5
U. S. S. R.	172,000	7.9	8,176	16.0	21.0
North America†	143,505	6.6	7,592	14.9	18.9
Latin America†	133,271	6.1	7,923	15.5	16.8
Caribbean Islands	14,266	0.7	91	0.2	157.2
Middle Amer. (inc. Mex.)	28,343	1.3	987	1.9	28.7
Western S. America‡	26,382	1.2	1,795	3.5	14.7
ABC Area§	63,724	2.9	4,876	9.5	13.1
Guianas	556	.....	174	0.3	3.2
Africa	158,000	7.3	11,699	22.9	13.5
Australia & Oceania‖	10,800	0.5	3,301	6.5	3.3

By contrast, the whole continent of South America, with an over-all density of only 13 per square mile, is a hollow shell, with clusters of people along the edges but practically nobody in the interior.[3] The tropical lowlands, sheer mountains, and dry plains of the interior are for the most part virtually uninhabited.

In Latin America generally, the scattered areas of real settlement often exhibit a high density and show a remarkable tendency toward urbaniza-

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[2]T. Lynn Smith, "Notes on Population and Rural Social Organization in El Salvador," *Rural Sociology*, Vol. 10 (December, 1945), pp. 360, 368-369.

*Except where otherwise stated, the figures for population and area are taken from League of Nations, *Statistical Yearbook*, 1942-1944, pp. 12, 16, 18, 20.

†Figures taken from appropriate census volumes, official estimates, *Handbook of Latin American Population Data*, compiled by Office of Inter-American Affairs (Washington, D. C., 1945), or *Statesman's Year-Book* (for areas of island possessions).

‡Includes Venezuela, Colombia, Ecuador, Peru, and Bolivia.

§Includes Brazil, Paraguay, Uruguay, Argentina, and Chile.

‖Includes New Zealand.

[3]Preston E. James, *Latin America* (New York: Odyssey Press, 1942), presents inside the front binding a dot map of the population.

tion,[4] in distinct contrast to the empty areas. With such sharp variation the average crude density is not a good measure of population pressure. Not only does it conceal regional differences, but it also ignores economic

Table 2

POPULATION, AREA, AND DENSITY, ABOUT 1940

(Countries Listed According to Magnitude of Population)

Country or Colony	Year	Population in thousands	Area in thousands of sq. miles	Persons per sq. mile
Brazil	1940	41,565	3,286.2	13
Mexico	1940	19,654	758.6	26
Argentina	1940	13,318*	1,072.7	12
Colombia	1938	8,702	439.8	20
Peru	1940	7,023	482.2	14
Chile	1940	5,024	286.4	18
Cuba	1943	4,778	44.2	108
Venezuela	1941	3,951	352.2	11
Bolivia	1940	3,457*	416.0	8
Guatemala	1940	3,283	42.0	78
Ecuador	1940	2,949*	104.5	28
Haiti	1939	2,600*	10.2	255
Uruguay	1941	2,186*	72.2	30
Dominican Republic	1944	1,970*	19.1	103
Puerto Rico	1940	1,869	3.4	546
El Salvador	1940	1,788*	13.2	136
Jamaica	1941	1,237	4.4	281
Honduras	1940	1,173*	59.2	20
Paraguay	1941	1,040*	150.5	7
Nicaragua	1940	899	57.1	16
Costa Rica	1940	656*	19.2	34
Panama	1940	632	28.6	22
Trinidad and Tobago	1941	506*	2.0	256
British Guiana	1941	354*	89.5	4
Guadaloupe	1936	304	.7	442
Windward Islands	1938	267*	1.0	267
Martinique	1936	247	.4	641
Barbados	1941	198*	.2	1,192
Dutch Guiana	1937	171*	50.0	3
Leeward Islands	1941	98*	.4	231
Dutch West Indies	1937	95*	.4	238
Bahamas	1941	71*	4.4	16
Canal Zone	1940	52	.4	143
British Honduras	1931	51	9.0	6
French Guiana	1936	31	34.7	1
Virgin Islands (U.S.)	1940	25	.1	187
Falkland Islands	1931	3	8.0	-----

*Those marked with an asterisk are estimates. All others are census figures.

[4]Kingsley Davis and Ana Casis, *Urbanization in Latin America* (New York: Milbank Memorial Fund, 1946, reprinted from April and July issues of the Fund's *Quarterly*).

factors. A better measure, for agricultural countries, is the number of persons dependent on agriculture per square mile of cultivable land. Though not obtainable for most of Latin America, this figure can be estimated more or less accurately for four countries, as follows:[5]

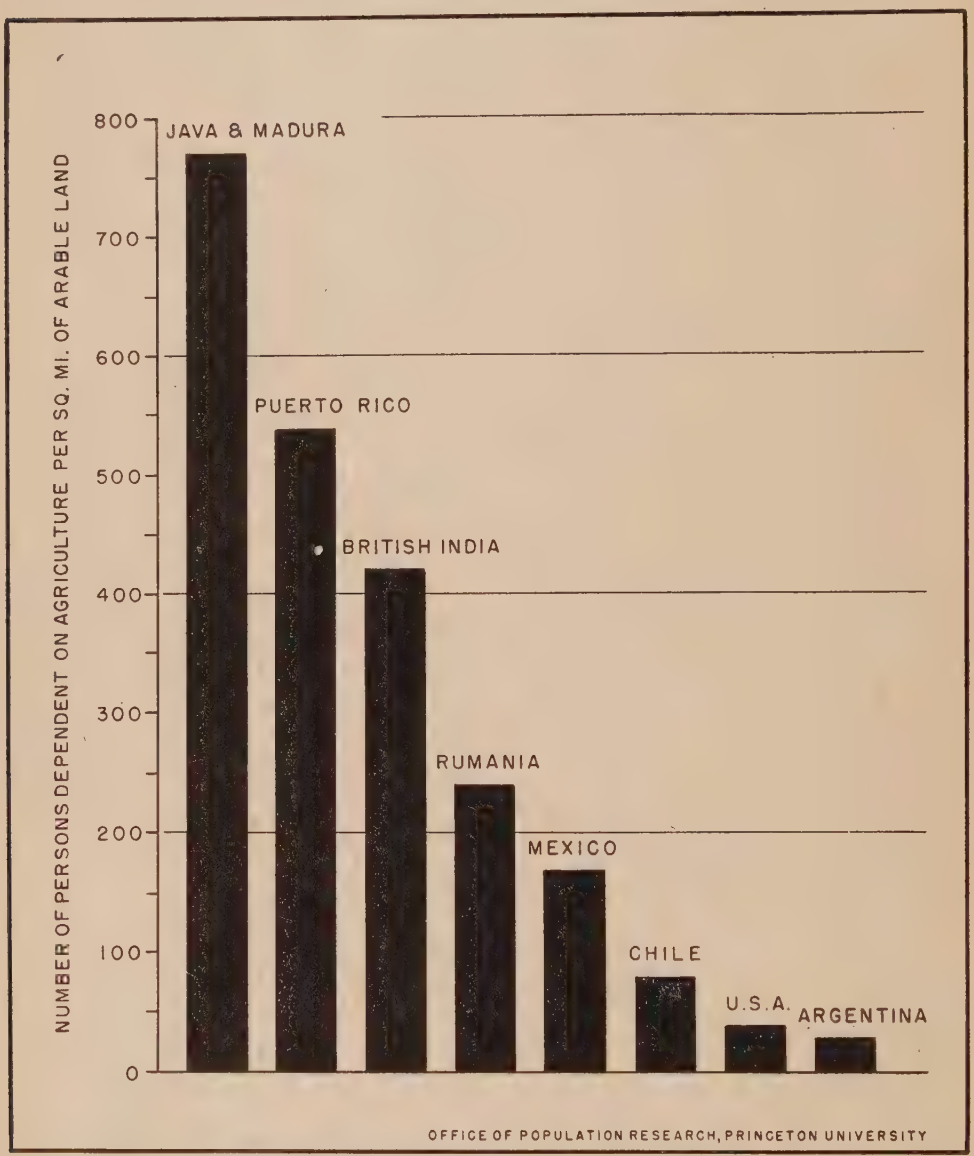

Chart 1. Number of People Dependent on Agriculture per Square Mile of Arable Land, Selected Countries.

[5]Accurate figures on both the population dependent on agriculture and the amount of arable land are hard to get. These estimates were made by computing the percentage of occupied males engaged in agriculture, and reading the per cent of the population dependent on agriculture from a regression line prepared in the Office of Population Research. The figure on population dependent on agriculture, obtained through this process, was then divided by the land alleged to be arable.

Puerto Rico	542
Mexico	170
Chile	81
Argentina	30

These results seem to show that the agricultural density is surprisingly variable, and in some cases quite high. Chart 1 compares these four countries with some other countries outside the region. It is interesting that Puerto Rico has an agricultural density higher than that of India, and that Mexico has one higher than that of Roumania. Some parts of Latin America, it seems, have far more people in relation to developed resources than the crude density would suggest.

Growth of Population

The low over-all density that Latin America now enjoys is bound to change, because the population, as mentioned earlier, is growing faster than that of any other major region (Chart 2). During the twenty years from 1920 to 1940 the number of people increased at an average rate of 1.73 per cent per year.[6] From a long historical point of view, this is a phenomenal rate of increase, for only in modern times have large regions exhibited such rapid growth. The rate was, of course, exceeded by the United States, Canada, and Australia during parts of the nineteenth and early twentieth centuries, but these countries were receiving many more immigrants, relatively speaking, than Latin America. Today those parts of the world that previously experienced the most rapid increase are slowing down, while Latin America is speeding up. During the 1920-1940 period the latter region added approximately 40 million, or about 41 per cent, to its population. In the same period the United States, starting with a larger population, added only 26 million, or roughly 25 per cent. The average annual rate of increase for the entire world between 1900 and 1940 is estimated to be 0.75 per cent, and this is the

[6]In getting the population of all Latin America at any one date, one must necessarily use estimates more frequently than censuses. To obviate this difficulty as much as possible, we computed the average annual growth rate for each country on the basis of its censuses (if it had any for recent times), even though these did not fall exactly in 1920 and 1940 respectively. The average annual growth rate, though often for a shorter or longer period than the 1920-1940 interval, was assumed to apply to that interval. The annual growth rate for Latin America as a whole and for each subregion was then obtained as a weighted average (weighted by the 1930 population) of the growth rates of the countries composing it.

Doubtless in some cases a later census was better than an earlier one, or a recent estimate was inflated as against an earlier estimate or census. Such a circumstance exaggerates the growth rate, and hence the rate calculated for all of Latin America is probably slightly too high. The error is not likely to be great, however, because most of the larger countries have had fairly good censuses and because sometimes it is the earlier rather than the later figure that is inflated.

fastest rate the world has ever known;[7] yet it is more than doubled by the recent pace in Latin America. This means that our southern neigh-

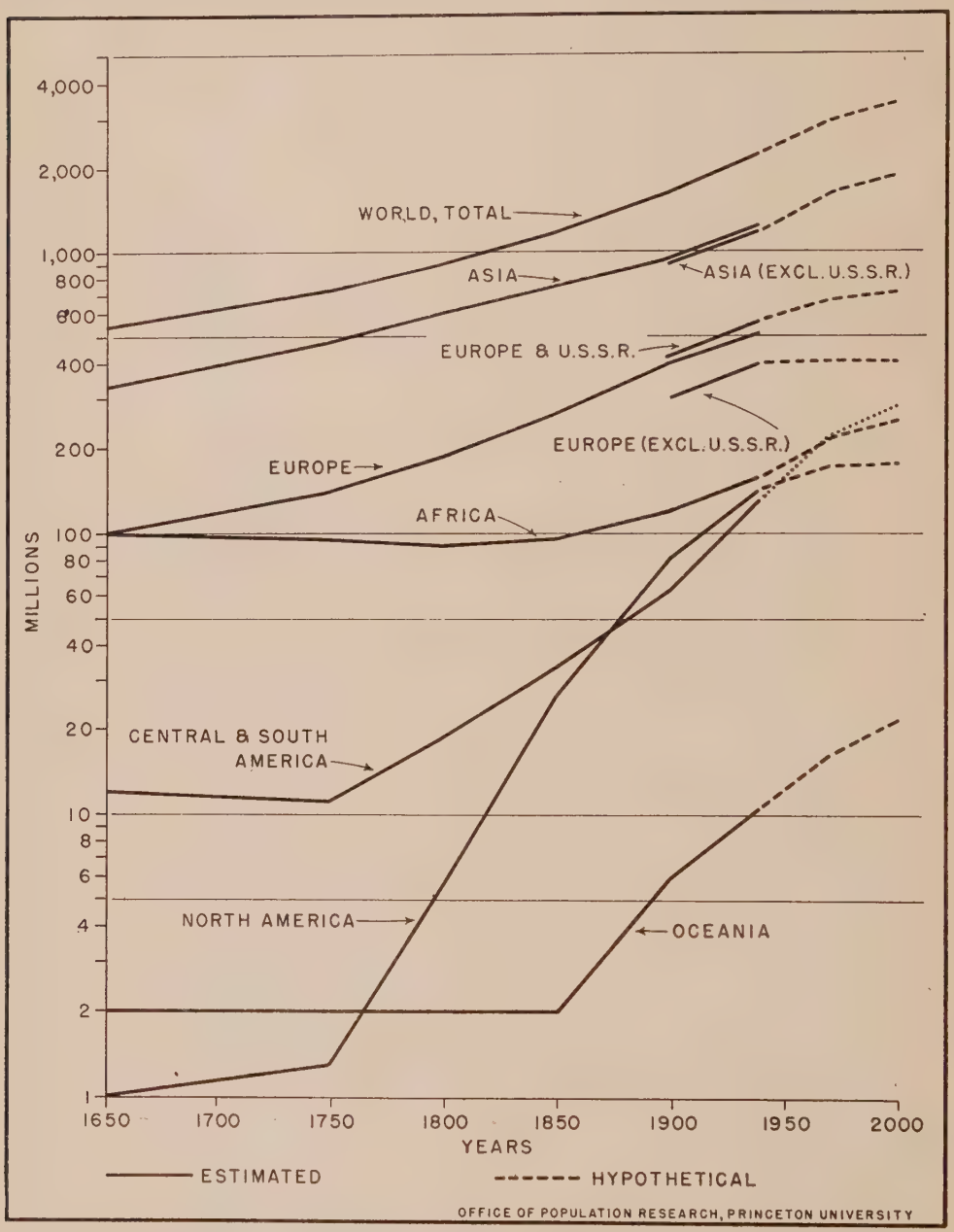

Chart 2. Estimated Population of the World and of Continental Areas, 1650–2000. From Kingsley Davis, "The World Demographic Transition," *Annals* of American Academy of Political and Social Science, Vol. 237 (January, 1945), p. 2. See also Frank W. Notestein, "Population—the Long View," in T. W. Schultz (ed.), *Food for the World* (Chicago: Univ. of Chicago Press, 1945), pp. 36-57.

[7]Kingsley Davis, "The World Demographic Transition," *Annals* of the American Academy of Political and Social Science, Vol. 237 (January, 1945), pp. 1-3.

bors are increasing their share of the world's population, and are doing it more rapidly than the people of any other region.

It is obvious that Latin America's lead in the world demographic race is relatively new. Although the early population statistics are even worse than the recent ones, the turning point seemingly came about 1900 (Chart 2). Until that time the growth in the region had apparently been substantial, but less than that of other new areas settled by Europeans. Since 1900 the evidence indicates that Latin America has held the lead.

How long the region will stay in front is hard to say. If the present growth rate continues, the population will be twice as large in 1986 as it is today, for it is doubling every 40 years; and by the year 2000 it will reach over 373 million. Even though such figures seem big in comparison to the present number, they are not physically impossible. The region is vast enough to accommodate at least 400 million people, without any technological inventions beyond what the world has today. Hence there is no *geographical* necessity requiring a diminution of the present growth rate within the next several decades.

It is doubtful, however, that what is geographically and technically possible will come to pass. Social and economic changes now occurring suggest that within the next three or four decades the peak of population growth in Latin America will be reached, after which a trend toward a stationary population will set in. The grounds for this belief will be presented shortly, but first the growth of population in the various subregions must be examined.

Growth by Subregions

The speed of increase by subregions is surprisingly uniform, as shown by the figures below:

	Average-Annual Per Cent Increase 1920-1940
LATIN AMERICA	1.73
Caribbean Islands and Guianas	2.03
Middle America (inc. Mexico)	1.88
ABC Area[8]	1.66
Western South America	1.60

Such small differences as occur may be due as much to faulty data as to real inequalities of growth. It is worth noting, however, that the most densely settled subregion, the Caribbean, is growing at what appears to be the fastest pace. Even if this result is spurious, one may feel certain that the Caribbean rate is quite high, and that the pressure of population on developed resources in this area has not lessened the natural increase. All told, however, it is not the differences so much as the uniformity of growth—uniformity at a high rate—that stands out.

Comparisons between individual countries are dangerous because of uneven reliability of the data. No one knows the population history of

[8]For countries included in this and the other South American area, see Table 1.

Bolivia, Ecuador, French Guiana, Paraguay, Honduras, or Haiti, because these countries have never had accurate censuses or vital statistics. Even in places with an occasional census, the completeness of enumeration may vary from one time to the next, and post-censal estimates may be misleading. For this reason the rates of increase for separate countries are not listed here. Suffice it to say that, of the major countries having fairly accurate statistics, those with greater than average growth rates are Cuba, Argentina, and Colombia; and those with less than average growth are Brazil, Chile, and Venezuela. The deviations from average by these major countries are not great, however.

The bulk of migration into Latin America during 1920-1940 went to the ABC countries, but Chile and Paraguay did not get their share. As a result Chile has had a comparatively low growth rate (1.49 per cent per year), and also Paraguay in all probability. It is generally admitted that Argentina's growth, apart from immigration, is slowing down. The slowness of Brazil's growth rate (1.53) is surprising in view of her large immigration. If migration is left out, it appears that the ABC countries are experiencing the slowest growth of any region. It is significant that they are also the most industrially advanced countries.

Some of the small crowded islands of the Caribbean also seem to have a slow rate of increase. Barbados, the Dutch West Indies (aside from Curaçao and Aruba), the French West Indies, and the Leeward Islands all show a pace far below the regional average. The sex ratios of these islands, as given later, indicate that a part of the explanation lies in emigration. The Caribbean as a whole, however, maintains a high growth rate, because the major antilles have a huge natural increase. Crowded Puerto Rico, Jamaica, and Cuba all have a growth rate exceeding that of Latin America in general; so, possibly, do Haiti and the Dominican Republic.

The Problem of Future Growth

Systematic projections of Latin-American populations can hardly be made at present, because adequate data are lacking.[9] Future estimates must therefore rely upon judgment rather than exact statistical calculation. By studying past trends in fertility, mortality, and migration, and by assessing such relevant factors as the growth of cities, literacy, industry, etc., the writer has made guesses as to what the population of each country will be in 1970, and thus has obtained a figure (203 million) for the entire region at that date. The 1940-1970 rate of increase (1.43 per cent per year) implied by this figure is considerably lower than the

[9]Irene B. Taeuber maintains that for the time being in Latin America, logistic curves are more feasible as a technique than component projections. She cites a wide range of literature on population estimating in this region, and discusses acutely the problems involved. "The Development of Population Predictions in Europe and the Americas," *Estadistica*, No. 7 (September, 1944), pp. 337-346.

1920-1940 "observed" rate (1.73). In short, this 1970 estimate assumes a rather sharp reduction in fertility during the thirty years in question, and is perhaps overcautious. It is therefore presented as the lower possibility, while the figure reached by a continuation of the observed 1920-1940 rate is taken as the higher possibility. The high estimate for 1970 yields a figure of 222 million as against the low estimate of 203 million. If, after 1970, one assumes a continuing rate of 1.73, a high estimate of 373 million by the year 2000 is obtained. If, on the other hand, one assumes that the low estimate for 1970 is correct and that the reduction in the annual rate of increase after 1970 is as sharp as the assumed reduction after 1940, a low estimate of 288 million is obtained for the year 2000 (Chart 3). It seems likely that the population of Latin America will fall somewhere between these extremes at the dates mentioned, barring

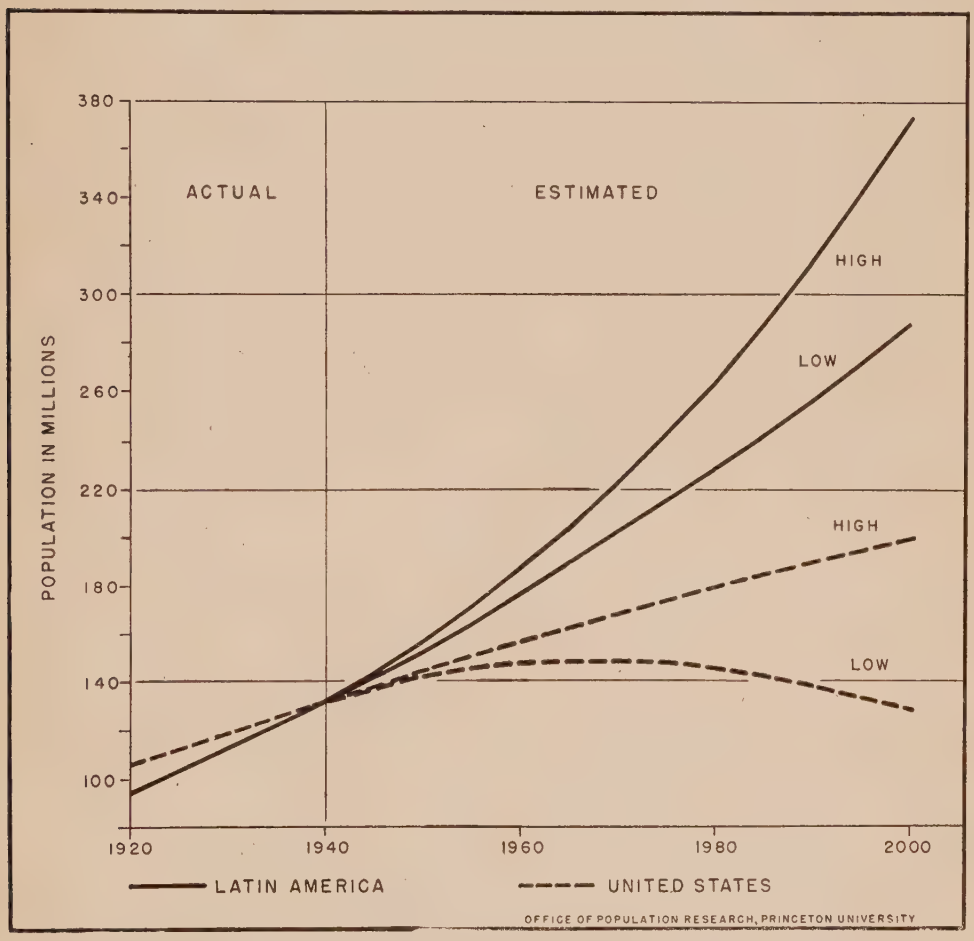

Chart 3. Recent Growth and Future Estimates of the Population of Latin America and the United States, 1920–2000. (The Latin-American estimates are discussed in the text; the United States estimates are taken from Warren S. Thompson and P. K. Whelpton, *Estimates of Future Population of the United States, 1940-2000* (Washington: National Resources Planning Board, 1943), p. 29.

major catastrophies; but it must be emphasized that this is guesswork. One should note that the high estimate for the United States in the year 2000 is only 199, and the low estimate only 129 million (Chart 3).[10] It thus seems likely that Latin America, which until 1940 lagged behind the United States, will have approximately twice the population of the latter country by the turn of the century. The Western hemisphere will become increasingly a Latin-American affair.

The writer now believes that the higher Latin-American estimate for 1970 is more probable, but that for the year 2000 an intermediate figure is more likely. In short he thinks that the population of the region to the south will grow very rapidly until about 1970, but that the rate of increase will fall off after that. This belief rests on the assumption that Latin America is now in the early-middle phase of the rapid growth cycle typical of the transition from illiterate agriculturalism to literate industrialism, a phase through which Western Europe, the United States, Canada, New Zealand, and Australia have already passed, and one which China and India have hardly reached. In the first part of the cycle, death rates drop faster than birth rates, and rapid population growth results. Later, as an urban-industrial milieu is created, the birth rate begins to fall to the level of the lowered death rate and the population approaches a stationary state. The new condition, a population balance resting on low mortality and low fertility, is much more efficient than the old, and its effects on human welfare are tremendous.[11] That Latin America is now in the rapid growth phase there can be little doubt. Just how long she will remain in this phase can be judged roughly by a consideration of birth, death, and migration trends.

Mortality. The death rates in Latin America are still high. In 1930 the estimated average death rate for the entire region was 26 per thousand, but this may miss the actual rate by a wide margin. Table 3 gives a few reported rates that seem approximately correct for specific countries.

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[10]Warren S. Thompson and P. K. Whelpton, *Estimates of Future Population of the United States, 1940-2000* (Washington: National Resources Planning Board, 1943), p. 29.

[11]The "vital revolution," or "demographic transition," is analyzed in some detail in A. M. Carr-Saunders, *World Population* (Oxford: Clarendon Press, 1936). It has been further dealt with and clarified in the writings of Frank W. Notestein, particularly in *Controlled Fertility* (Baltimore: Williams and Wilkins, 1940), Chap. 15; in *The Future Population of Europe and the Soviet Union* (Geneva: League of Nations, 1944); and in numerous articles. See also Kingsley Davis, "The World Demographic Transition," *loc. cit.*, and "The Shifting Balance of World Population," *Forum*, Vol. 105 (January, 1946), pp. 419-426 (February, 1946), pp. 493-498.

Table 3

APPROXIMATE BIRTH, DEATH, AND NATURAL INCREASE RATES FOR SELECTED COUNTRIES, 1931-1940 AND 1941-1944*

Country	1931-1940			1941-1944		
	Birth Rate	Death Rate	Natural Increase	Birth Rate	Death Rate	Natural Increase
Argentina†	25.1	11.8	13.2	23.6	10.6	13.0
Costa Rica	43.0	19.3	23.7	42.2	17.3	24.9
Chile	34.2	24.5	9.8	33.0	19.8	13.1
Mexico	43.7	24.2	19.5	43.9	21.5	22.4
Puerto Rico	39.8	19.9	19.8	40.3	16.2	24.1

But mortality, though still high, appears to have been declining. In every country where registration is fairly reliable, a downward trend is observable (Charts 4 and 5); and in no country can a secular rise in the death rate be proven. In the future this downward trend will probably continue. There is great interest in public health in this area, and since new discoveries in the control of tropical diseases are being made, since financial aid and public education are being extended, it can be anticipated that the death rate will be materially reduced, perhaps sharply reduced, in the next few decades.

Fertility. Latin America exhibits some of the world's highest birth rates. Nobody knows exactly how high they are; according to our estimates the average rate in 1930 for the whole region was 43, which is probably too low.[12] The birth rates are usually more than twice, sometimes thrice, what they are in the United States and Northwestern Europe. Also, as Table 3 and Charts 4 and 5 show, they are far greater than the death rates. It is chiefly this wide gap between high birth rates and not-so-high death rates that explains the fast growth of Latin-American population.

With death rates likely to fall still further, future population growth depends on what happens to the currently high birth rate. It seems likely that the rate will decline gradually for two or three decades, and more rapidly after that. The evidence is as follows: (1) In the most advanced of the southern countries fertility is already exhibiting a strong downward tendency. The most pronounced case is Argentina, where the decline has been quite striking and has caused alarm in political circles

*Computed from figures given by official reports of each country and by the *Summary of Biostatistics* prepared by the U. S. Department of Commerce, Bureau of the Census, in coöperation with the Office of the Coördinator of Inter-American Affairs, Washington.

†Exclusive of territories. The 1944 rates are not included in the averages in the last three columns.

[12]Estimates were made for the individual countries by various techniques, depending on the amount of data available. The actual average rate for the entire region might be anywhere between 40 and 50, but is not likely to lie outside these margins.

(Chart 4).[13] The next is Chile, where the birth rate remained quite high until 1928 and then experienced a sharp drop without recovery (Chart 4). These are two of the most urbanized and industrialized countries in Latin America. If the rest of the countries follow the same line of de-

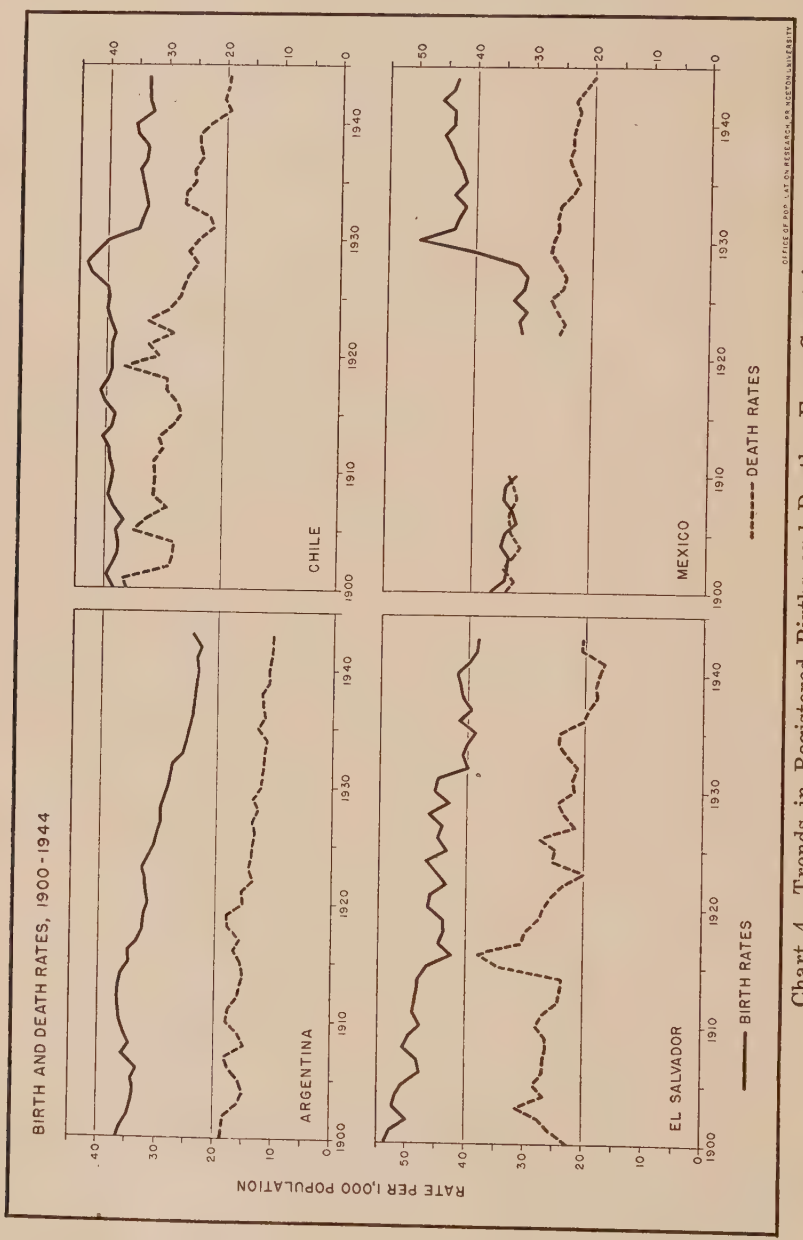

Chart 4. Trends in Registered Births and Deaths, Four Countries.

[13]Alejandro E. Bunge, *Una Nueva Argentina* (Buenos Aires: Guillermo Kraft, 1940), p. 149.

velopment, their birth rates may be expected to show similar declines. (2) Socio-economic modernization is seemingly proceeding faster than population growth. At least the available data in certain countries show that literacy and urbanism, two of the best indices of modernization, are increasing rapidly (Chart 6). These are precisely the conditions that tend to bring down fertility. The fact that Latin America has already gone a good way in the direction of urbanization without much industry[14]

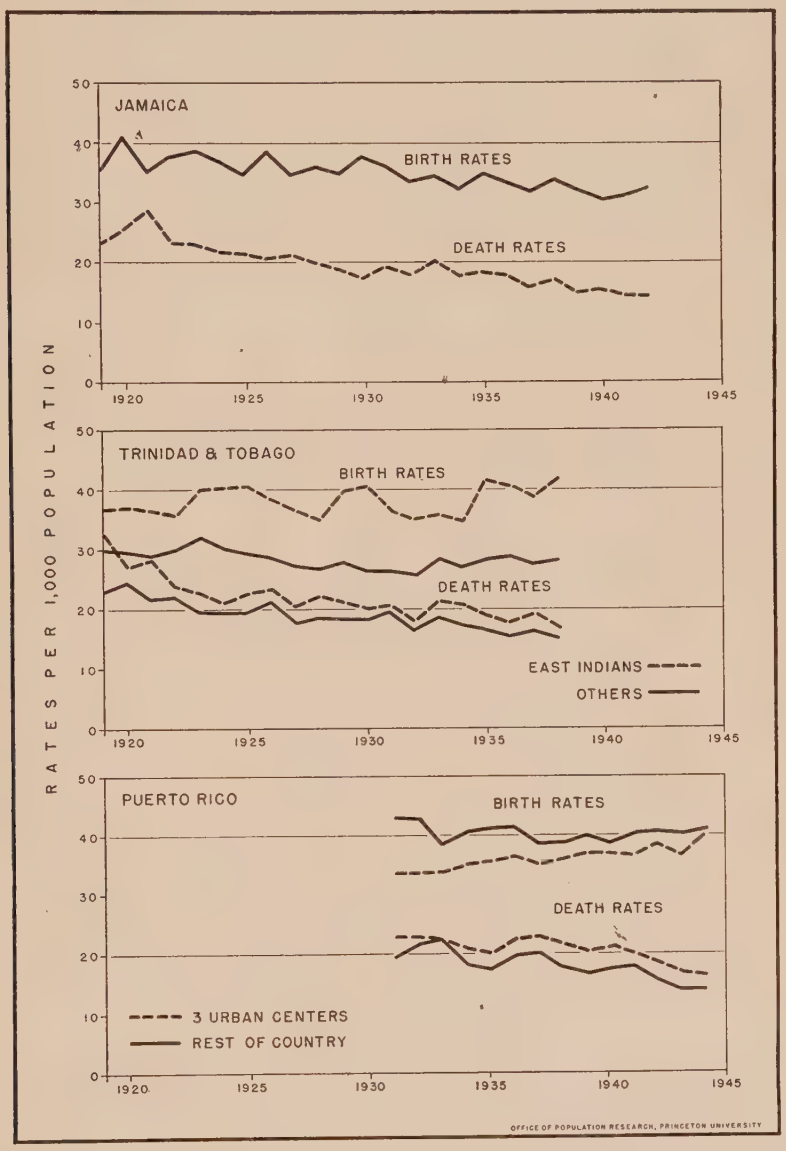

Chart 5. Trends in Registered Births and Deaths in Three Caribbean Territories.

[14]Kingsley Davis and Ana Casis, *op. cit.*

suggests that with further industrial development urban attitudes may spread widely and thus diffuse a lower fertility. The cities undoubtedly have a lower fertility than the country; for in Argentina, Chile, and Puerto Rico, where birth registration is fairly reliable, the reported urban birth rate is substantially below the rural,[15] and the ratio of children

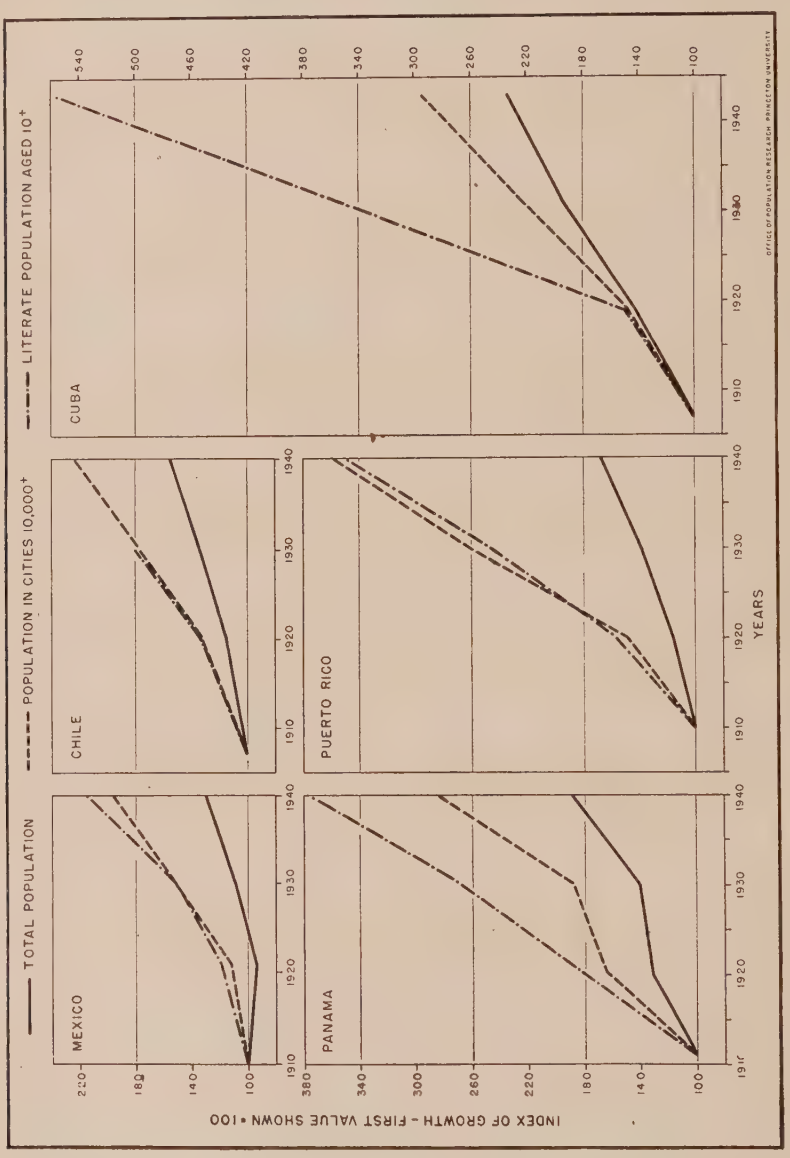

Chart 6. Growth of Literate Population (aged 10 and over), Population in Cities of 10,000 and Over, and Total Population, Selected Countries.

[15]This fact holds despite some tendency to hospitalize births and thus report them in the city. Rural-urban rates are given in Chart 5 for Puerto Rico. Here it appears that the urban birth rate has been rising, but this is probably due to the increased practice of hospitalization.

to women is known to be lower in the cities than in the country (Chart 7). The city populations have been increasing not so much by heavy fertility as by substantial rural-urban migration. As urbanism spreads, it should exert a strong downward pressure on the general birth rate.[16]

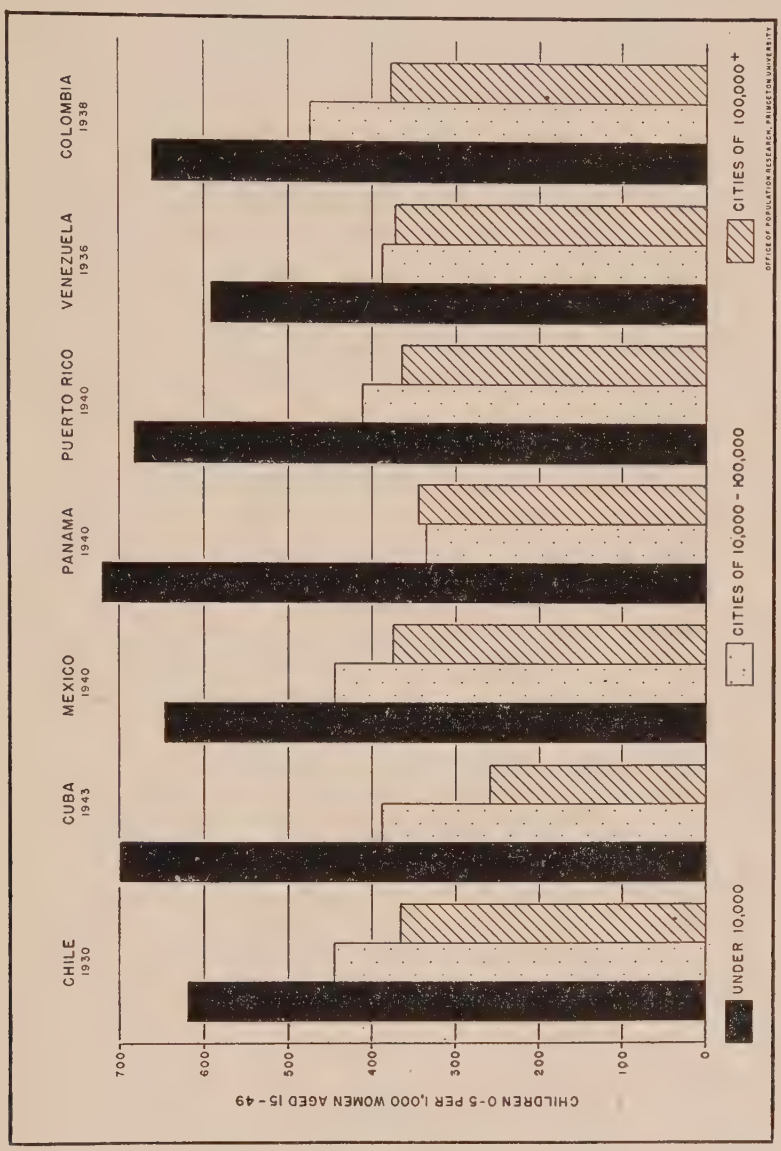

Chart 7. Child-Woman Ratios in Cities of Two Size-Classes and in Rest of Country, Selected Countries.

Immigration. As shown later, immigration has not played a great role in the modern growth of population in Latin America. Nor is it likely to play a great role in the future. The reason is that, contrary to popular belief, the remaining potentially useful but unoccupied lands will probably not be taken up by foreign settlers, because land tenure, economic costs,

[16]This has apparently happened already in Argentina. See Bunge, *op. cit.*, p. 158.

and technological difficulties all stand in the way, and there are few potential immigrants of the type that the southern republics want. Short of conquest by Orientals, future population growth will come mainly from natural increase, not from immigration.

The reasons for our view of the future now begin to take shape. With mortality declining rapidly, the natural increase should remain high for a considerable time. But fertility should also begin to decline rapidly in two or three decades. Eventually, at a time when the decline of the death rate is losing its impetus, the birth rate should begin to approach the level of the death rate, and the natural increase start to disappear. Latin America will then have completed the demographic transition, the same transition that the industrialized nations have already passed through. At a rough guess the maximum estimate for 1970 in Chart 3 is most probable, but the maximum for the year 2000 quite unlikely.

Even if the extremely high rate of natural increase were to continue to the end of this century, the Latin-American area, as a whole, could accommodate the increased population without falling into the condition of China and India. Since this is our maximum possibility, and one that seems unlikely, there appears to be no ground for viewing the currently fast rate of growth with pessimistic Malthusian alarm.

Population Growth in the Caribbean

What is true of the whole region, however, is not necessarily true of the subregions. Certain islands of the Caribbean already have more people than their resources and economies justify. If all of Latin America had the same average density as the Caribbean islands, it would contain around a billion and a quarter people. Yet, as we have seen, the population of these islands continues to grow with alarming rapidity. At its present speed, the current population of 14 million will grow to 26 million by 1970, with a density of 290 per square mile, and will reach 50 million by 2000, with a density of 547. These are not impossible figures. The density of Puerto Rico is already more than 550. But in view of the paucity of resources and the lack of industry on these islands, such an over-all density would likely mean extreme poverty. Something—*i.e.*, lower fertility, higher mortality, or emigration—will surely stop the growth before it goes that far.

Although a sudden rise in the death rate is possible, it seems more likely that every effort will be made to keep mortality down, and that some other safety valve will give relief from the rapid increase of numbers. Our data suggest, for example, that Caribbean fertility may have already started declining. This is particularly true of the English-speaking islands, where the registered birth rates in some cases show substantial declines—*e.g.*, Jamaica and the native population of Trinidad (Chart 5). But it is also true of some of the Spanish-speaking islands.

The registered birth rate of Puerto Rico, accurate only since 1930, shows no trend,[17] but the percentage of children 0-14, listed below since 1899, shows a decline:[18]

1899	43.9
1910	42.9
1920	43.3
1930	42.1
1935	41.2
1940	40.6

Cuba also has experienced a slight decline in fertility, to judge by the number of children 0-4 per 1000 women 15-49, as follows:

1907	673
1919	660
1931	564
1943	535

In the future this apparent tendency of Caribbean fertility to decline may become much more pronounced and thus save the subregion from extreme overpopulation, but in the meantime mortality is declining more rapidly than fertility, with a high rate of natural increase resulting.

Another safety valve for the Caribbean may lie in emigration. The archipelago has long been a region of exodus. Jamaicans have gone to the mainland coasts, particularly to Panama and Costa Rica; Puerto Ricans have gone to the United States and Hawaii. The sex ratios of the smaller islands bespeak considerable emigration (Table 4). However, emigration can hardly be a *long run* solution. It assumes that some other area is always available to absorb migrants, but as we have seen, the other regions of Latin America are themselves growing fast, and if they want immigrants, they may prefer people from other areas. Since the population of the whole world is increasing at a startling pace, it is physically impossible for all the regions of heavy growth to receive permanent relief through migration. As a *temporary* measure, however, this mode of relief looks much more feasible for the Caribbean area than for the huge Oriental countries. Indeed, the relief afforded might possibly be just the thing needed in the Antilles to help produce the shift to a modern demographic balance. But any encouragement of emigration can afford merely temporary advantage. The only long run solution, short of increased mortality, lies in reducing the birth rate.

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[17]The span covered by these statistics includes, as its first part, the depression period when fertility was normally low, and as its second part, the post-depression and early war period when fertility was normally high. Therefore, the absence of the usual upward trend toward the end of the depression may signify a latent tendency of fertility in Puerto Rico to decline.

[18]The trend represented by these figures is perhaps more significant than it seems, because the statistical biases are against such a trend. The decline in mortality, affecting infants more than any other class, would tend to augment the proportion of children in the population, and better census enumeration would tend to do the same thing. Therefore, if correction could be made for these factors, the downward trend might be still more impressive than it is.

Table 4

SEX RATIOS IN SELECTED CARIBBEAN ISLANDS*

Island	Date	Males per 100 Females
Cayman	1921	73
	1943	100
Barbados	1921	67
Jamaica	1921	88
	1943	94
Leeward Islands	1921	77
Windward Islands	1921	80
Trinidad and Tobago	1921	104
	1931	100
Puerto Rico	1910	99
	1920	99
	1930	100
	1940	101

Growth Outside the Caribbean

The other regions of Latin America still have considerable room for expansion, but not so much as commonly believed, because huge areas are virtually uninhabitable. South America, less favored in climate than any of the three northern continents, has the greatest proportion of territory subjected to rainy tropical conditions, and at the same time large areas that are arid or semiarid.[19] Central America and Mexico similarly have too much area that is either too wet or too dry, too high or too low. "Less than 12 per cent of Mexico's area is potential crop land and of this acreage over 79 per cent is semiarid."[20] There are some potentially rich areas (*e.g.*, the Eastern slopes of the Andes) that have not yet been developed because they are inaccessible to markets; but to make them accessible will require a long and arduous improvement of transportation and the use of new technology, all of which will prove costly. Other areas are not available to homestead settlement because of the *latifundia* system. Consequently, in the absence of technological and economic changes, the increase of population is likely to crowd certain accessible, already exploited areas, leaving other potentially rich but remote lands virtually uninhabited. The people of Latin America have characteristically been grouped together in widely separated clusters.[21] The natural setting and the economic system have both fostered this tendency, and it will not be easy to overcome.

*Computed from census figures.

[19]George Wythe, *Industry in Latin America* (New York: Columbia University Press, 1945), p. 2. Clarence F. Jones, *South America* (New York: Holt, 1930), pp. 30-31, 49, 50-51, *et passim.*

[20]Wythe, *op. cit.*, p. 2.

[21]Preston E. James, *Latin America* (New York: Odyssey Press, 1942), pp. 4, 160-168, 193-210.

Population Policy

Perhaps it would be best if new territories were not settled until the control of fertility for higher living standards had been learned. The new territories, once opened up, would then be exploited by the use of machinery, science, and finance, rather than by the use of cheap manpower furnished by excessive reproduction.

Such an expectation, however, is Utopian. The average Latin American contemplates the empty spaces of his country and jumps to the conclusion that they are not exploited *because* they are sparsely settled. He reasons that if his country can maintain a high rate of population growth or can bring in immigrants, it will then be able to exploit its vast undeveloped areas and will become rich thereby. The fallacy of this reasoning can be exposed by asking why good lands in Latin America, after centuries of European colonization, are still scantily settled. There must be some explanation other than simple lack of population increase. It seems, in fact, that the situation is due to a lack of capital, with all that this implies. If the economic and social institutions of the original settlers had encouraged thrifty agriculture, a productive industry, and a low mortality, their natural increase and their attraction of immigrants would long since have filled up the favorable areas. Both the scarcity of population and the lack of economic development are therefore traceable to the same causes—the peculiar cultural as well as environmental conditions of Latin America. A different cultural background would have created in the same physical environment a fuller occupation of potentially rich areas and a lesser occupation of purely agricultural regions. It follows that the remedy today is not more people, but a new economic and social orientation. To acquire more people without having the latter is to get the cart very much before the horse.[22]

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[22]This view is the opposite of that taken by Paul R. Olsen and C. Addison Hickman, *Pan American Economics* (New York: Wiley, 1943), Chapter 7. Their belief that the sparsity of population in Latin America is blocking economic development is based in part on a comparison of density in this area with the contemporary density of population in the United States (pp. 164-165), but the real comparison should be with the United States in 1870 or 1880, when this country was getting its industrial start. In 1870 the population per square mile in the United States was less than in Latin America today, and yet, according to Wythe, *op. cit.*, p. 11, this was the most comparable period industrially speaking. The United States did not have to wait upon a greater population to get its economic development; its industrial growth helped to produce its phenomenal demographic expansion.

Olsen and Hickman fail to analyze the population of Latin America by subregions. They admit repeatedly that the Caribbean is industrially the most backward area, and yet this is precisely the area with the heaviest population densities. Finally, the authors in question seem to labor under some misconceptions concerning the demographic trends in Latin America. They seem to think that population growth in this region is slowing down (p. 166) and that somehow this has something to do with "races," but they offer no evidence to support these conclusions. Hence their advocacy of immigration (pp. 174-177) loses some of its force.

Although encouragement of rapid population growth will probably remain the official policy, it is not likely to be effectively implemented. The population trend will doubtless proceed as if there were no policy. Only when, at the end of the transitional period of rapid growth, a sharp decline of fertility sets in and governments begin to worry about "depopulation" will the policies become more insistent—as may happen in Argentina in the near future. By the time this situation develops throughout most of Latin America, however, a world government may have achieved such ascendancy that demographic competition between countries will be passé.

Migration Policy

Facts concerning migration in Latin America are hard to find, but a few conclusions seem warranted. Before 1815 migration to the Americas was never very heavy.[23] After that came great waves of migration, but the bulk of the immigrants went to the United States and Canada. Of a total of 53.8 million estimated to have come to the Americas during 1821-1932, the United States and Canada received 39.4 million, or 73 per cent.[24] Relatively, then, Latin America has not received a great number of immigrants, even in times of mass movements. Immigration has, therefore, played only a minor role in the modern growth of population.

Of the immigrants who did come to the southern shores, the lion's share apparently went to Argentina, Brazil, the British West Indies, Cuba, and Uruguay, in the order named. These countries drew migrants (Negro slaves excepted) because they promised good wages or profits, not because they promised good land. Homesteading has never been a dominant pattern in Latin America; the immigrants found farms hard to get and hard to keep, because the accessible land was already owned by large landlords and because government policy favored the estates.[25] Immigrant farm settlement schemes have been perennially attempted, but have met with little success.[26] Oriental immigration has proved unpalatable.[27] As time has gone by, immigration to Latin America has served less to build up new homestead regions than to furnish labor for estates and cities. There seems to be little likelihood that future condi-

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[23]Marcus Lee Hansen, *The Atlantic Migration: 1607-1860* (Cambridge: Harvard University Press, 1941), Chapters 1-4.

[24]A. M. Carr-Saunders, *World Population* (Oxford: Clarendon Press, 1936), pp. 46-49.

[25]J. A. Shellenberger, "Argentina's Agricultural Future," *Scientific Monthly*, Vol. 40 (April, 1945), pp. 257-260.

[26]For the reasons see Wilbert E. Moore, "Economic Limits of International Resettlement," *American Sociological Review*, Vol. 10 (April, 1945), pp. 274-281.

[27]J. F. Normano and Antonello Gerbi, *The Japanese in South America* (New York: John Day, 1943). J. D. Tyson, *Report on the Conditions of Indians in Jamaica, British Guiana and Trinidad* (Simla: Government of India Press, 1939).

tions will change this tendency; therefore, prospective immigration cannot be counted on by Latin America for the conquest of her frontiers.[28]

Not only is migration ineffective nowadays as a pioneering device, but it has changed its complexion. Whereas with the exception of Africans and some Orientals, past immigration to Latin America was almost wholly European, it seems probable that, refugees apart, this source will no longer be available, because Europe is approaching a stationary population and will likely retain a higher living standard than Latin America. Furthermore, Latin America will have to compete with other regions for whatever European immigrants may be available. Canada, Australia, New Zealand, South Africa—all would like more Europeans. Since these places have a higher standard of living and a greater amount of industry, they are likely to outbid our southern neighbors in attracting immigrants.

Plenty of non-Europeans would be willing to come, but it is likely that the Latin Americans would object to an influx of them. The experience with Orientals in Dutch and British Guiana, in Trinidad, Brazil, and Peru has not been propitious for further experiments along this line.

Even if acceptable immigrants were plentiful, the desirability of mass immigration would still be questionable. Any country can use well qualified persons above the average in training and capacity. Latin-American industrialization could profit by the entry of such persons. But this is precisely the type of immigrant least likely to move, and most sought after by other countries when he does move. India, China, Africa—all will need technically trained persons. The question really turns on the desirability of masses of unskilled immigrants. These are not needed to build up the population, for Latin America's population is already growing at the world's most rapid rate. Indeed, the fundamental problem is not lack of people, but lack of capital and skills.

It looks then as if Latin-American nations can hardly rely on immigration to solve their problems. They must rely upon their own natural increase to furnish numbers and upon their own educational systems to provide training. The need of technically trained persons can be met, as a temporary expedient, by sending Latin-American students to other countries.

The emigration of Latin Americans to other regions seems, in contrast to mass immigration, eminently desirable. It creates a vacuum at home that stimulates economic effort. It brings foreign funds into the country and thus stimulates demand. And for those emigrants who return, it brings back skills and new ideas. Short-term, controlled emigration schemes seem to promise a great deal in terms of economic advance and international understanding.

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[28]For the changing character and economic stimuli of modern migration, see W. D. Forsyth, *The Myth of the Open Spaces* (Melbourne: Melbourne University Press, 1942), Part 1.

Conclusion

Latin America is demographically one of the world's most fortunate regions, because she still has great *potential* resources in relation to her population. But these resources are not being used effectively so as to provide a high standard of living. At the same time, the population is growing faster than in any other major region. This rapid growth might suggest to the unwary observer that Latin America is headed for a place alongside India, Egypt, China, and Java as a densely peopled backward area. Already the Caribbean islands seem to be reaching this condition; and Latin-American fertility is obviously high, the attitudes and mores quite favorable to population increase.

But such a view overlooks the transitional character of modern population growth. Latin America is now in the rapid growth phase of the world demographic transition. In the nature of the case she cannot remain in the midst of it very long, because this transition leads ultimately to a condition of low birth and death rates and hence to low natural increase. Despite the currently fast growth, and its likely continuance for some time, there are already signs that the rate of growth will start declining before the region has reached an advanced stage of superabundant population. Fertility is apparently declining in those areas where urbanization, industrialization, and education have gone farthest, and since these conditions are spreading rapidly in Latin America, we may eventually expect more rapid fertility decline in the other areas.

By way of policy it is suggested that the goal is not a greater population in Latin America. It is to make sure that the growth is checked before numbers become excessive. This applies particularly to the Caribbean, where density has perhaps already reached the point of impeding the final phase of the demographic transition. Furthermore, immigration for the sake of greater numbers would seem a mistaken policy; and immigration for the sake of overcoming deficiencies of training or capacity in the existing population would seem impracticable. Chief reliance will have to be placed on basic economic and social changes, not on the demographic factor. Some degree of informed planning in population may be necessary, however, to get the most out of an essentially hopeful situation. Above all, it must be remembered that no permanent decline of mortality is possible without an accompanying decline of fertility. If deaths are to be controlled, births must also be controlled.

OBSERVACIONES SOBRE ALGUNOS ASPECTOS DE LAS RELACIONES ECONOMICAS DE ESTADOS UNIDOS CON LOS PAISES LATINO-AMERICANOS

JAVIER MÁRQUEZ

Sub-Director, Fondo de Cultura Económica, México, D. F.

Quiero empezar por admitir que buena parte de los conceptos económicos en boga en América Latina entre hombres de negocios y hombres de gobierno, es muy discutible en el terreno de la especulación abstracta (y hasta la no abstracta), y supongo que ustedes pensarán lo mismo de muchas de las ideas de los hombres de negocios y estadistas norteamericanos. Los economistas de América Latina se esfuerzan por difundir conceptos que se ajustan a su idea de una buena política económica, y tienen un éxito tan pobre como muchos economistas norteamericanos en su país. En algunos casos nos resulta fácil convencer a un industrial de las ventajas de las industrias, o a un agricultor de los beneficios de la agricultura, pero es relativamente difícil convencer a un industrial que explota su fábrica gracias a un derecho arancelario de 100 por ciento que esto no es conveniente, y también lo es convencer a un funcionario público de que el organismo donde trabaja hace más daño que bien, aunque los industriales y agricultores estén de acuerdo en este punto con el economista. Parecerá extraño, pero así es.

Quizá me atreviera a hacer una exposición de lo que yo quisiera que fuera el módulo de las relaciones económicas entre América Latina y Estados Unidos, y también podría decir bastantes cosas respecto a cómo me gustaría que fuera la política económica de algunos países latinoamericanos o la mentalidad de los hombres de negocios, de los obreros, etc., en diversos lugares, pues todos tenemos una filosofía económica más o menos definida, así como una filosofía política y social. Me bastaría presentar, con la mayor claridad posible, mi concepto de estado ideal y de armonía ideal en las relaciones internacionales. Pero este proceder tendría varios inconvenientes: el primero que estaría revelando un secreto que he prometido a Javier Márquez no contar a nadie por el momento; el segundo que el cuadro resultante estaría muy lejos de la realidad pasada, presente y futura y, el tercero, que no les interesaría a ustedes.

Entonces, parece más indicado decir algo sobre cómo podrían ser algunos aspectos de esas relaciones económicas dentro de lo que es factible dada la realidad material y la mentalidad que prevalece en nuestros países.

Con esto no estoy renunciando a mi profesión de economista o de predicador. Sólo quiero señalar que si bien los economistas no deben cansarse de predicar, aunque sus palabras parezcan caer en saco roto, también deben reconocer la realidad, confiar en que sus ideas se irán incorporando lentamente al acervo mental de los directores de los negocios y del estado,

y mientras tanto procurar sacar de las cosas tal como son el mayor partido posible. No sirve de nada empeñarse en imponer un módulo económico ideal cuando éste se encuentre muy en desacuerdo con los deseos de quienes tienen la última palabra. No es preciso renunciar a aquello en que creemos, pero no siempre será lo mejor empeñarse en imponer ideas derrotadas por anticipado. Yo soy partidario de que el economista distinga entre lo que debe ser y lo que puede ser, o lo que puede conseguir que sea. En esta ocasión procuraré, sobre todo, presentar a ustedes lo que, a mi modo de ver, son algunas de las opiniones de los dirigentes de la economía latinoamericana. No comparto en todos los casos esas opiniones, pero son éstas las que cuentan y no las mías, y por ello creo que les interesarán a ustedes más. Por otro lado, también querría justificar esos puntos de vista, pues no creo que puedan descartarse a la ligera; creo que son perfectamente humanos y comprensibles por mucho que nos gustara cambriarlos.

Empecemos, pues, por reconocer que no es admisible que quienes dirigen una nación actúen como "ciudadanos del mundo", aunque lo deseemos, y debemos resignarnos a que procuren el engrandecimiento del país que gobiernan y que se encojan piadosamente de hombros ante las consecuencias de sus acciones para los demás. Estas no son palabras de buen economista, no es "lo que debería ser", pero es la realidad. Unos gobernantes actúan de ese modo porque aman a su país sobre todas las cosas, otros porque quieren complacer a quienes lo aman y que son los que les pedirán cuentas. Desde luego, estoy exagerando bastante la situación, pues nadie es indiferente a los sufrimientos de otros, pero los sacrificios que un país está dispuesto a hacer en beneficio de otros tienen un límite bastante concreto, y muchas veces el "sacrificio" económico, en forma de préstamos, de regalos de alimentos, etc., lleva, junto con su dosis de humanitarismo, su significado político, es decir, se compran satisfacciones difíciles de medir en dólares y centavos, y no es todo altruismo.

En América Latina existe el temor constante de que la ayuda económica que Estados Unidos pueda prestarle tenga ese significado político y, además, está muy difundida la tesis de que no existe una ventaja económica bastante grande para compensar el perjuicio de cualquier influencia política. Es una opinión muy extendida entre todos los que no se benefician por esa ayuda de un modo directo, y entre los que creen no beneficiarse bastante por ella, es decir, entre la inmensa mayoría de las personas. Yo opino que en esas creencias hay un tanto por ciento elevado de verdad, cualquiera que sea mi opinión respecto a los beneficios económicos que tal ayuda material ha proporcionado o pueda proporcionar en el futuro; y quiero advertir desde ahora que el deseo de influencia política, ideológica, etc., por parte de Estados Unidos me parece tan natural como la resistencia latinoamericana a admitirla; y también estoy dispuesto a aceptar que ese deseo de influencia política o ideológica se desee con objeto de beneficiarnos.

No es fácil para una gran potencia como Estados Unidos ayudar a países pequeños y con una susceptibilidad muy desarrollada. Tiene que luchar con los contribuyentes en su interior y con los ayudados en el exterior. Todo economista sabe hasta qué punto se considera perverso un regalo de mercancías en el país que las necesita y cómo han fracasado las demostraciones más claras de los beneficios que proporciona a un hambriento el regalo de una barra de pan. Todos sabemos que una proporción enorme del pueblo latinoamericano no disfruta de una alimentación suficiente, pero si Norteamérica se ofrece a completar gratuitamente la dieta de nuestra población hasta alcanzar el nivel ideal, estaría comentiendo el peor acto de imperialismo imaginable. Si además de la alimentación regalara buena ropa tendríamos sin duda un *casus belli.* Esto no sería considerado como humanitarismo, sino como competencia desleal de la peor especie. Aunque tengo esperanzas de que la ayuda económica norteamericana a nuestros países no llegue a ese extremo, quiero señalar esta actitud, por demás conocida, y que no es privativa de América Latina, sino que se da con mayor entusiasmo aún en Estados Unidos y en otras muchas naciones.

Si sólo entraran en juego intereses económicos, cabría pensar que Estados Unidos terminaría por cansarse y dejarnos que corriéramos nuestra suerte como mejor pudiéramos, sin hacer más esfuerzos por ser simpático. No voy a ocuparme de esos otros motivos, pero su existencia es una realidad muy palpable. Estados Unidos no puede ignorarlos, y los países latinoamericanos saben que Estados Unidos no los ignora.

No faltan latinoamericanos que sostengan la tesis de que Estados Unidos no desea el progreso de América Latina, que hace lo posible por impedirlo dificultando la industrialización de nuestros países y por otros procedimientos. Desde luego, esta no es una tesis seria. Puede emplearse como demagogia barata y supongo que todo vecino poderoso de países pobres ha de resignarse a tales acusaciones encogiéndose de hombros ante ellas o poniendo cara de mártir. Es cierto, cómo no, que los exportadores norteamericanos a nuestros países ven con malos ojos el establecimiento de industrias competidoras y que pueden hacer (que han hecho con frecuencia) esfuerzos por eliminarlas, pero esto no es antilatinoamericanismo, sino una simple competencia; igual esfuerzo hacen cuando la competencia surge dentro de Norteamérica. Pero si hay algún interés en el buen nombre de Estados Unidos, quizá los industriales norteamericanos harían bien en medir con cuidado la agresividad de sus prácticas comerciales pues lo que ellos hagan será atribuído al país mismo. Con el clima mental que prevalece hoy en América Latina, es muy posible que, por no resignarse a perder el 20 por ciento de las exportaciones a algún país, más de un industrial se exponga a enturbiar el ambiente y a perderlas todas, pues la complacencia de las autoridades latinoamericanas para con sus industriales, en materia fiscal, arancelaria y de control de cambios, alcanza proporciones considerables.

La idea de que el progreso de los países atrasados no perjudica a los más adelantados, a sus proveedores, como en todo, por mucho que pueda perjudicar a algunos de los exportadores, se ha repetido ya hasta la saciedad y es una de las opiniones de los economistas que ya han asimilado los funcionarios públicos; es, por consiguiente, una de las ideas utilizables como base de la política oficial. Un gobierno esclarecido debería enfrentar las reclamaciones de un industrial o un agricultor perjudicado por un arancel ajeno, o uno propio, con las no menos respetables de los beneficiados por esas medidas. Estados Unidos ha entrado ya por esa vía con su programa de tratados recíprocos, pero no se ha atrevido, o no ha podido, llevarlo todo lo lejos que le convendría a sí mismo y a nosotros.

Hay una cosa cierta, una realidad que Estados Unidos y todas las grandes naciones han de aceptar: los países latinoamericanos, igual que todos los países de economía atrasada que tienen, o creen tener (pues para el caso es lo mismo), posibilidades de progreso económico, se van a lanzar, o se han lanzado ya, por el camino del fomento deliberado y enérgico de sus recursos naturales, humanos y de capital, utilizando todos los medios de que disponen y que creen eficaces con ese fin; y si consideran que la política de otra nación, o la de los nacionales de ella, les perjudica, procurarán resistirse a las presiones económicas, políticas o de cualquier índole que se intenten ejercer contra ellos con objeto de alcanzar su meta.

Así, pues, mi opinión es que la actitud de Estados Unidos debe ser una consecuencia de dos premisas, cuya existencia debería comprobar: la primera, es la realidad de esa voluntad firme de parte de América Latina de seguir aquella política que, *ex ante,* le conviene más; la segunda es la conveniencia para Estados Unidos de tener un buen nombre al sur del río Bravo y de impedir que volvamos los ojos hacia otro país o grupo de países en busca de mercados, de capital, de elementos técnicos y de importaciones. Si faltara alguno de estos dos pilares, la mejor política que podría seguir Norteamérica sería la más egoísta o, si ustedes quieren, la la más lógica en el aspecto económico, aquella que a la corta y a la larga proporcionara, *ex ante,* el mayor beneficio a los norteamericanos como individuos y como nación. Yo creo que las dos premisas se dan en grado superlativo y, *además,* que la existencia de la primera debería verse con buenos ojos, pues no tiene probabilidades de acarrear a Estados Unidos ningún perjuicio económico, sino, quizá, todo lo contrario.

América Latina quiere industrializarse. En algunos sectores es éste un deseo frenético. Podrán ustedes criticarlo, como yo he criticado de palabra y por escrito la industrialización precipitada; pero el movimiento es demasiado fuerte para querer oponerse a él, en el supuesto de que se creyera conveniente hacerlo por estimarse que no existen elementos suficientes para la industria. Lo más que puede hacerse, dadas las circunstancias, es *orientar la industrialización* hacia el camino que parezca más conveniente, o menos perjudicial. Los partidarios del librecambio a ultranza y los convencidos de que nuestros países no tienen porvenir

industrial, harían bien, enfrentados con la realidad de la voluntad de industrializar, en pensar un poco más en la posible orientación de la industria y en gastar menos tiempo intentando inútilmente disuadir de su conveniencia. Más vale haber contribuido modestamente a aminorar una posible (y dudosísima) catástrofe, que la gloria de haberla sólo profetizado.

Ahora bien, hay a este respecto dos cosas que los latinoamericanos no ven con buenos ojos por parte de Estados Unidos: una es que nos ponga dificultades a la industrialización; la otra, es que nos ayude a realizarla hasta el punto de que no sea una industrialización nuestra. Paso por alto la primera y voy a detenerme unos momentos en la segunda.

Si dejamos de lado los movimientos nacionalistas, los sentimientos patrióticos, patrioteros y otros respetables y semi-respetables, aún quedan razones de peso para defender esa actitud adversa al "exceso de ayuda". Es muy duro pedir apoyo para montar una industria y al mismo tiempo negar al Mecenas una participación en los beneficios que puedan derivarse de su intervención; es muy absurdo permitir el establecimiento de una industria y después mirar de reojo al que la montó y sacó adelante. Por este motivo he defendido en otras ocasiones las leyes restrictivas de las inversiones extranjeras en nuestros países. Pero, desde la última vez que tuve oportunidad de tratar el tema, he ido reafirmando más esta tesis favorable a la reglamentación de las inversiones extranjeras en el sentido de que las inversiones directas son más peligrosas de lo que con anterioridad había pretendido.

Cuando empezaba mis estudios de economía leí con gran entusiasmo el tratado de Taussig sobre comercio internacional y el magistral estudio del profesor Viner sobre la balanza de pagos canadiense. No creo que haya estudiante capaz de leer esa última obra sin sobrecogerse de emoción ante la fidelidad con que los hechos parecen obedecer a los mandatos de la teoría clásica: entrada de capital, alza de precios, aumento de las importaciones; después, los intereses y devoluciones superan a las entradas de capital: baja de precios, aumento de las exportaciones, etc., etc. Cuando comprobaba que el proceso se producía aun sin alzas o disminuciones de precios, la fe en el mecanismo autoregulador se reafirmaba. . . . Hoy mi fe en el mecanismo no ha desaparecido del todo, pero enfrentado con los problemas humanos de la economía nacional me deja bastante frío.

¿Podemos aplicar la tesis librecambista del comercio internacional a las inversiones directas? Con las inversiones directas no hay, en principio, *devolución* de los préstamos, no hay pago de *intereses*, sino de ganancias, y lo más grave es que *no hay préstamos*. Hay solamente eso: inversiones directas. Se obtienen ventajas a la corta, sin duda, pero. . . .

Quien haya pasado por una Escuela de Economía conoce muy bien las ventajas de las inversiones directas sobre las de cartera o, mejor dicho, las inversiones en valores de renta fija. No sólo es el mayor interés que pone el inversionista en los resultados de la inversión, sino que los pagos del deudor tienen probabilidades de provocar menores

dificultades de balanza de pagos, pues los pagos serán mayores en épocas de prosperidad, es decir, cuando mayor es la capacidad de pago. En cambio las otras inversiones pueden llegar a ser un lastre insoportable en los tiempos malos. Pero el cuento no se acaba aquí. El punto de vista de los dirigentes de la política económica latinoamericana en el campo de los negocios y en el del gobierno es, para efectos prácticos, el que puede interesar. No siempre alegan contra tales inversiones argumentos buenos, o, por lo menos, no defienden en todos los casos su tesis con argumentos que el economista puede aceptar, sino que a veces aducen en su apoyo ideas trasnochadas, demagógicas, o lo que se quiera, pero otras veces recogen algunas que tienen validez para el economista desinteresado.

Dejemos de lado las manifestaciones de nacionalismo puro, que no son sin embargo poco importantes y que deben añadirse a las económicas. Nos encontramos, por ejemplo, cuando se trata de industrias extractivas que trabajan para la exportación, con el argumento del agotamiento de los recursos naturales. En estas industrias, dicen los críticos, lo poco que América Latina saca en salarios e impuestos no compensa los perjuicios que se causan; cuando ya estemos en condiciones de transformar en nuestro interior las materias primas, resultará que su explotación intensiva para la exportación sólo nos habrá dejado los recursos más pobres, lo incosteable, y entonces a cambio de unos jornales y unos impuestos miserables nos habremos privado de las ganancias auténticas que podríamos haber obtenido de esos recursos. Además, la mayoría de esas inversiones para la exportación sólo nos proporcionan divisas en la medida de esos jornales e impuestos, menos la parte de ellos cubiertos con la venta del producto en el interior de la nación; si esos jornales e impuestos fueran una parte pequeña de tal valor (y la opinión dominante es esa) quedaría una diferencia sustancial que no vuelve al país (que no nos proporciona cambio exterior para pagar nuestras obligaciones extranjeras) ni representa la devolución de un préstamo que nos permita algún día recabar el beneficio pleno de la exportación. Cuanto más ricos sean nuestros recursos, menor será, proporcionalmente, nuestro beneficio.

Ahora bien, parece que las inversiones internacionales directas (con o sin participación nacional) se van orientando de más en más hacia la producción de artículos y servicios para consumo del país de inversión (dejemos de lado los ferrocarriles, que son más bien ya un laboratorio de investigación económica en el campo de las inversiones que una realidad del presente o el futuro). Aquí el latinoamericano se queja de que el extranjero participa en las prácticas seguidas por muchos de sus connacionales, de explotación abierta del consumidor. La legislación, en ocasiones, y el medio, en otras, que se han creado para permitir a algunos productores un enriquecimiento rápido, favorecen también al inversionista extranjero, de modo que la exportación de las ganancias de las empresas extranjeras suma a los inconvenientes (y las ventajas, por qué no decirlo) de esa situación el problema de la presión sobre la balanza de pagos.

Esta es, entre otras, la razón por la cual algunos voceros de la opinión pública[1] han pedido que se obligue a los inversionistas extranjeros a reinvertir parte de sus utilidades y que sólo se les permita sacar del país de inversión una parte moderada o "legítima" de esas ganancias; aunque también conozco casos de queja por la magnitud de las propiedades extranjeras alcanzada precisamente por haberse realizado esa reinversión. Sin duda, la solución de la reinversión, si se quieren evitar problemas de balanza de pagos, sólo es válida si se cree en una tasa marginal muy decreciente de las ganancias del capital, pues de no ser así, sólo se lograría un aplazamiento del problema, que surgiría con mucha mayor fuerza en el futuro, cuando a las ganancias derivadas de la primera inversión se sumaran las derivadas de las reinversiones; y no es muy probable, hasta dentro de bastante tiempo, que los países latinoamericanos tengan una tasa marginal decreciente de ganancias.

En fin, junto con las razones que quedan expuestas (desde luego, he eliminado las demagógicas) tenemos la de la permanencia de las inversiones directas. El país de inversión, sus nacionales, no tienen una oportunidad de llegar a "nacionalizar" esas inversiones. Para que tal cosa suceda se necesita, por lo general, una guerra que obligue al país inversionista a deshacerse de ellas a fin de conseguir divisas, o bien actos del tipo de la expropiación petrolera o parecidos, que son todo menos favorables a la entrada de capital extranjero, o la buena armonía de las relaciones internacionales, por justificadas que se consideren en otros respectos.

Como creo, junto con muchos latinoamericanos, que las inversiones norteamericanas son muy deseables para nuestro progreso económico y, al mismo tiempo, me parecen buenas algunas de las objeciones que se hacen a ese capital o, por lo menos, me parece indispensable tener en cuenta la realidad, el ambiente, que reina en nuestros países y estimo muy legítimo (aunque no sólo por razones económicas) el deseo de "nacionalizar" en algún momento tales inversiones, ¿no sería posible establecer algún plan con ese fin? ¿No cabría establecer de alguna forma la opción para el país de inversión para adquirirla al cabo de equis años de hecha (digamos, veinte) mediante el pago del valor presente de la misma? Me doy cuenta de que tal arreglo debería completarse con una serie de disposiciones tendientes a crear un estímulo mayor para el inversionista, a asegurar la conservación del capital, a establecer normas para fijar el valor presente de la inversión, etc., pero no creo que, a pesar de ello, fuera imposible el funcionamiento de tal arreglo.

Un punto más, e importante, en cuanto al problema de las inversiones: las actividades en que se hagan. Si se admite que lo que interesa a Estados Unidos es una América Latina próspera, pues esa es la mejor garantía

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[1]Por ejemplo el líder obrero Vicente Lombardo Toledano en un discurso ante la Asamblea Nacional del Sector Revolucionario de México, en el mes de Septiembre de 1944.

de que será un buen mercado para los productos norteamericanos, de que puede pagar sus obligaciones exteriores, de que disminuirá la susceptibilidad respecto del imperialismo yanqui y de que Estados Unidos tenga en nosotros un aliado de peso, entonces, si se admite esto, también se habrá de admitir que no es indiferente la clase de actividad impulsada por las inversiones exteriores, pues a veces la creación de una nueva actividad económica muy lucrativa para el inversionista nacional o extranjero puede ser un elemento de debilidad para otras partes más sanas de la economía. Los organismos del tipo del Banco de Importación y Exportación, del Banco Internacional de Reconstrucción y Fomento y del proyectado Banco Interamericano deberían adquirir mayor importancia. Una institución internacional de esa clase, capaz de calibrar con un juicio sano la viabilidad o conveniencia de ciertas actividades *para el país de inversión,* y que fuera el *cauce* de las nuevas inversiones, podría ser, además de una garantía para el inversionista, un freno muy útil para los deseos inmoderados de industrialización que se manifiestan en nuestros países.

El miedo a la acumulación de actividades antieconómicas que comparto con otros economistas, no ha pasado sino en pequeña medida a la mentalidad de quienes pueden decidir el curso de la política económica de nuestros países. Pero digo que sólo ha pasado en pequeña medida porque sí hay atisbos de él. Nos ayudan en este caso los intereses creados, los que defienden las actividades económicas tradicionales y las ven en peligro ante el empuje del nuevo espíritu. En la medida en que aquellos intereses defienden actividades "sanas", son un freno que impide un ritmo indebidamente rápido de pseudo-progreso económico. Pero en buena medida esos intereses creados son un elemento reaccionario y defienden con tanta o más saña lo indefendible que lo legítimo, las actividades incosteables, lastre, que las otras. Los gobiernos, complacientes en muy buena medida, como ya he dicho, con los intereses industriales nuevos, no se dejan arrastrar sin resistencia y, quizá por el freno de los intereses creados tradicionales, junto a sus declaraciones de deseos de progreso industrial, ponen notas de moderación y de respeto para el consumidor.

En esta medida, los gobiernos van a la zaga de los intereses económicos nuevos, pero contribuyen saludablemente a impedir un desarrollo económico precipitado y por caminos equivocados.

Sería deseable que en el progreso de la actividad productora privara un espíritu parecido al que encontramos entre economistas (Prebisch y Urquidi, por ejemplo) y estadistas en lo que concierne a control exterior de la moneda, es decir, una discriminación fina entre lo que debe considerarse esencial y lo que no lo es. Este es el siguiente punto que tocaremos.

Me parece que tenemos indicaciones muy claras de que los países de América Latina pretenden emplear el arma monetaria en su beneficio. La resistencia a aceptar los acuerdos de Bretton Woods nos da una señal

bien patente de ello. Aunque no es posible en los países situados al sur del río Bravo un control de la situación cambiaria tan estricto como en los países más organizados, más adelantados, sin embargo, las autoridades monetarias de América Latina han aprendido la técnica de ese control y están dispuestas a emplearla, en la medida de lo posible, en todo aquello que, según su criterio, pueda sernos beneficioso. Tanto más cuanto saben que al pesar poco individualmente en la economía del mundo, sus acciones no tienen probabilidades de provocar reacciones en sus clientes o abastecedores.

Todos los libros de texto de economía, y otros que no son de texto, nos explican los inconvenientes derivados de las fluctuaciones violentas de precios, los beneficios de la estabilidad, la inseguridad que crean en los negocios los altibajos del poder adquisitivo de la moneda. Dejemos de lado el problema del poder adquisitivo interior y centremos la atención en el aspecto internacional. Los altibajos siguen siendo perjudiciales, pero en ocasiones la estabilidad lo es más, pues puede significar pérdida de mercados y otros trastornos. Frente a esto la administración monetaria se presenta como una solución o, mejor dicho, como un arma capaz de contrarrestar, en manos de un país débil, ciertas dificultades que puedan surgir de las relaciones económicas internacionales, y también como un arma utilizable, cuando se presenta la ocasión, para suavizar los ajustes fundamentales o estructurales. El control de cambios, con muchas deficiencias, imperfecciones y lo que se quiera, está en marcha; es una técnica que, más o menos, se halla al alcance de cualquier gobierno, se emplea ya desde hace años para resolver problemas de balanza de pagos y se recomienda con insistencia como la forma más expedita de canalizar las importaciones hacia aquellos bienes que se juzgan más necesarios para el progreso económico del país, de manera que las divisas se destinen a esos bienes y no a otros.

Estados Unidos produce buena parte de las mercancías que los países latinoamericanos considerarán siempre como esenciales para su progreso económico, y si algunos de nuestros países imponen un control de cambios discriminatorios será precisamente para desviar sus compras no de un país a otro, sino de unas mercancías a otras. Y aun suponiendo que existiera una discriminación cambiaria por países, ¿podría quejarse Estados Unidos de que los países de América Latina buscaran por el lado monetario el ajuste de sus balanzas de pagos? Mientras Norteamérica tenga un arancel con el que pretenda protegerse contra supuestas o reales competencias, ¿no es legítimo que otros países se protejan contra peligros reales o supuestos por medio de aranceles u otros procedimientos que parezcan más expeditos? Me doy cuenta perfecta de los argumentos teóricos y prácticos que pueden oponerse a esta tesis, pero quienes no la acepten habrán de convenir que en la teoría y en la práctica pueden encontrarse argumentos serios para defenderla, o por lo menos, y éste es mi punto de vista, que hay muchas probabilidades de que esa situación de control monetario, entre otros, en el campo del cambio exterior vaya a

ser una realidad y que, en consecuencia, mientras el ambiente en favor de otras soluciones no sea más propicio, será mejor procurar sacar de la situación real el máximo provecho, y admitir que el control de cambios tiene cierta justificación.

Si el gobierno norteamericano no está dispuesto a reducir los derechos de importación de determinadas mercancías de importación decisivas para las economías de algunas naciones latinoamericanas, quizá no oponga tantas objeciones a una devaluación de las monedas de esas naciones. El resultado es el mismo en algunos respectos y quizá la devaluación provoque una reacción menor, pues la protección, la "ayuda", se proporciona por omisión y no por acción.

Hemos perdido las esperanzas de que Estados Unidos reduzca su arancel, en las mercancías competidoras, en un grado que represente una ayuda sustancial para nuestros países. Estados Unidos ya está protegido contra la competencia exterior. América Latina empieza ahora a protegerse y, en consecuencia, sus cambios arancelarios son hacia arriba. Los de Estados Unidos pueden adoptar una apariencia liberal, los nuestros difícilmente.

El control de cambios es en ocasiones un subterfugio para eludir obligaciones derivadas de tratados comerciales, como lo fueron en su día los contingentes de importación, que sin violar la letra de los acuerdos internacionales, pretendían actuar sobre la balanza comercial. El control de cambios consigue los mismos resultados por un procedimiento más indirecto aún y es mucho más dúctil.

Nuestra capacidad de compra de importaciones es limitada y además está sujeta a severas fluctuaciones como resultado de los movimientos de los precios de nuestros productos de exportación (que como es bien sabido están más expuestos a bajar que los precios de los productos fabriles) y de las tendencias proteccionistas de los importadores. Queremos importaciones y queremos pagar nuestras deudas con el exterior; no estamos dispuestos a soportar los ajustes internos que impondría el libre juego de caóticas relaciones económicas internacionales. Entonces, si establecemos una escala de preferencias de mercancías extranjeras, el control de cambios nos permite, por una parte, regular las cantidades gastadas en cada mercancía o grupo de mercancías y, por otra, favorecer aquellas importaciones que nos parezcan deseables para nuestro progreso económico y el bienestar de nuestros compatriotas.

Nadie impone control de cambios por el gusto de burocratizar su economía o por ganas de molestar al prójimo. Cuando se establece es porque se siente con o sin razón necesidad de reservar divisas para ciertos usos. El ideal sería que hubiera tal abundancia de divisas para todos los usos que no se sintiera necesidad de reglamentar u orientar su empleo. Estoy de acuerdo en que de esta arma de control puede hacerse, y se ha hecho en ocasiones, un uso indebido. Son fallas lamentables de todas las instituciones creadas y dirigidas por los hombres. Pero esto no invalida el principio. Todos deseamos que quienes dirigen las instituciones económicas

lo hagan con honradez y sabiduría, y a conseguirlo deben dirigirse nuestras críticas, mas el fracaso de algunos hombres no priva a la institución de su validez.

¿No sería conveniente, pues, que Estados Unidos viera con buenos ojos las prácticas de control cambiario en nuestros países, en el entendimiento de que no hay en ellas sino el deseo, entre otros, de contrarrestar las imperfecciones de los mercados internacionales, que se hallan por entero fuera de nuestro control? ¿Qué es preferible, que compremos automóviles y no paguemos nuestras deudas exteriores o que paguemos las deudas y no compremos automóviles? En muchas ocasiones no tenemos dinero para las dos cosas, y muchos latinoamericanos prefieren pasearse en automóvil a pagar sus deudas, pero como queremos que nos sigan prestando dinero, con la esperanza de poder comprar automóviles dentro de algunos años, hacemos esfuerzos para que momentáneamente sean menos los paseantes.

Cuando el control de cambios se convierte en una práctica permanente y se intensifica cada vez más, tendremos una indicación de que donde sucede tal cosa existe un desajuste fundamental en la economía. El remedio, entonces, no consistirá en eliminar ese control, sino que será preciso actuar sobre otros sectores. Este es, a mi modo de ver, el punto de vista latinoamericano respecto al control de cambios.

El último aspecto de las relaciones económicas de América Latina con Estados Unidos de que propongo ocuparme es el relativo a los intentos de ordenación formal de las mismas.

Los capitanes de industria norteamericanos nos tienen acostumbradísimos a las alabanzas. Es rara la semana en que uno de ellos, a su paso por nuestros países, en viaje de vacaciones o exploratorio, no dice a algún periodista que el porvenir del mundo está en Latinoamérica, que estamos llamados a desempeñar un papel decisivo en la economía universal y que en vista de ello está proyectando invertir en nuestra hermosísima tierra una cantidad impresionante de dólares. Pero ya estamos muy cansados de estas alabanzas; por lo que a mí me toca diré que harto.

Cuando un estadista norteamericano promete algo muy bueno o se muestra partidario de ciertas medidas que nos convendrían mucho, el proyecto se estrella contra la oposición de los intereses creados norteamericanos. Pero lo peor viene cuando se trata de buscar un patrón único de política económica para Estados Unidos y para los países de América Latina.

Como ejemplo de intento de arreglo de las relaciones económicas interamericanas tenemos uno reciente en la Conferencia de Chapultepec celebrada en febrero y marzo de 1945, donde se llegó incluso a aprobar una "carta económica de las Américas".

Una de las observaciones que pueden hacerse respecto a las reacciones que provocó es que pueden contarse con los dedos de una mano los comentarios que ha despertado entre los economistas latinoamericanos. Mientras duró la Conferencia no se habló en los periódicos de otra cosa, pero, una

vez concluída, apenas si se ha oído hablar de ella en sus aspectos económicos, y esto me parece una indicación de que nuestro público tiene poca fe en las palabras y en los documentos que salen de esas reuniones internacionales.

Mucho de lo que contienen las resoluciones de la Conferencia se sale por entero del hemisferio occidental, no son cosas que se puedan resolver sin contar con el resto del mundo, y es ocioso por ello definir propósitos que después hayan de modificarse. En especial, pienso en todas las "excepciones" a la tesis liberal que se refieren al control del comercio de materias primas. La medida en que pueden resolverse estos problemas dentro de América es tan limitada que no valía la pena manchar la nítida pureza del platónico librecambismo de la delegación norteamericana con esas excepciones. Fueron los países de América Latina los que más insistieron en ellas. Podemos decir que los países latinoamericanos accedieron a consignar el principio general de la libertad de comercio con la mayor solemnidad, siempre que quedara establecido que se reservaban el derecho de hacer lo que les viniera en gana respecto al comercio de productos primarios, que es el único que les interesa de un modo fundamental en lo que concierne a comercio exterior.

Dos economistas mexicanos (Daniel Cosío Villegas y Víctor L. Urquidi) escribieron sendos artículos con diverso grado de pasión y amplitud. No puedo reunirlos aquí[2] y sólo diré que de uno de ellos la Conferencia sale bastante mal parada y del otro con muchos recortes. Ambos comentaristas destacan la imposibilidad de aplicar a América Latina el mismo criterio que a Estados Unidos y que no es admisible pretender que en nuestros países el estado se abstenga de tomar la iniciativa en la fundación de empresas (como pretendía la delegación norteamericana). Los dos economistas han prestado tanta o mayor atención a las enmiendas propuestas por los delegados latinoamericanos que a las resoluciones mismas y los dos han rendido homenaje a la sinceridad con que se expresó el delegado norteamericano Clayton, unas veces diciendo cosas que nos complacían y otras cosas que nos herían.

Con mucho de lo que estos colegas dicen estoy por entero de acuerdo y con ciertas partes diverjo más o menos radicalmente. Un examen de esos acuerdos económicos llevaría cuando menos toda una conferencia y por ello sólo voy a destacar ciertos puntos de importancia especial para el tema de esta.

Podría decir algunas cosas sobre la espléndida distinción[3] entre trabajadores, productores y consumidores, pero me saldría mucho del tema. Me contentaré con pedir que quien sepa cómo se hace para ingresar en la clase de los consumidores tenga la bondad de darme el secreto. Tampoco

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[2]Véase: Daniel Cosío Villegas, "La Conferencia de Chapultepec", en *Cuadernos Americanos*, año IV, 1944, No. 3; Víctor Urquidi, "Problemas económicos planteados en la Conferencia de Chapultepec", en *Boletín del Banco Central de Venezuela*, Año IV, No. 16, de abril de 1945.

[3]Resolución XV, 1ª y en otros lugares.

quiero insistir en vaciedades tales como la declaración[4] de que se procurará "allanar en lo posible los obstáculos que retarden o estorben el desarrollo económico," porque procurar lo contrario sería fantástico.

Sería difícil disentir de algunas de las resoluciones aprobadas, como la relativa a la reorientación de la producción hacia actividades más económicas cuando se produzcan excedentes gravosos sistemáticos[5] u otras de las referentes a desarrollo industrial[6], pero hay tantos puntos comunes y tantas frases vagas que no comprometen a nada que cabe dudar si esa conferencia tuvo otro resultado que el (nada despreciable) de proporcionar, en lo económico, un cambio de impresiones entre los delegados y peritos de los distintos países. Mas en cuanto a hechos, a realidades, ventajas logradas por nuestros países como consecuencia de ella, aún no hemos visto nada. Las anteriores reuniones económicas celebradas durante la guerra sí tuvieron un resultado; en ellas Estados Unidos proponía cosas concretas y las realizaba más tarde (y las hubiera realizado aun sin las conferencias); ahora se trataba más bien de deshacer, y los países de América Latina se resistían.

Ha sido muy frecuente señalar hasta qué punto es bajo el arancel norteamericano para los productos de exportación de América Latina y ha sido constante la afirmación de que por esa razón no tenían fundamento las quejas latinoamericanas contra el proteccionismo de Estados Unidos. A esta actitud podemos oponer tres argumentos, dos de los cuales se han manoseado ya bastante, aunque no por ello sean menos válidos: el primero es que hay muchos productos de exportación de América Latina que tropiezan con dificultades arancelarias o de otras clases en Norteamérica (como cereales, carnes, azúcar y muchos minerales); el segundo, que las estadísticas sólo nos muestran lo que entra a pesar de los derechos, y que si éstos no existieran surgirían en América Latina producciones de las que hoy carecemos precisamente porque hay un arancel, y el tercero, que me extraña no haber leído, ni aun en escritos latinoamericanos, es una simple aplicación del principio librecambista del comercio multilateral: a América Latina no le es indiferente el proteccionismo industrial norteamericano, pues si otros países industriales encontraran mercado en Estados Unidos también tendrían más divisas para comprar nuestras exportaciones, esos otros países industriales se creerían menos obligados a ser proteccionistas y nuestros productos entrarían en ellos con mayor facilidad. El proteccionismo estadounidense nos priva de mercados fuera del hemisferio occidental. El hecho de que Inglaterra no pueda vender el producto A a Estados Unidos impide a Inglaterra comprarnos el producto B, con lo cual nosotros no podemos comprar en Estados Unidos, Inglaterra y Suecia la mercancía C y pagar la deuda D. Esto es el A B C

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[4]Carta Económica, Declaración de principios No. 9.

[5]XLVI, resolución 2ª.

[6]Por ejemplo: L, resolución 1ª.

de la teoría y la realidad del comercio internacional y no voy a insistir en ello.

Cuando en la Conferencia de Chapultepec se sienta como principio general la tesis de la libertad de comercio parece como si los aranceles no fueran un atentado a esa libertad y sólo deban considerarse como tales los contingentes de importación, el control de cambios, la empresa estatal, etc., etc., y éste es un criterio que se está difundiendo mucho y dando al concepto de libertad de comercio un sentido del todo arbitrario.

Si se tratara de reuniones en las que sólo participaran los países latinoamericanos, en muchos casos las discusiones podrían, con provecho, versar sobre problemas de principio, si se quisiera lograr un acuerdo respecto a la orientación que cabría dar a la política exterior de cada uno respecto a los colosos industriales. Pero no se puede pretender, y esto lo han dicho norteamericanos y lantino-americanos por igual, que los países situados al sur del río Bravo quisieran seguir la misma política económica que Estados Unidos. Puede discutirse si hacen bien o mal en adoptar esa actitud, pero no hace falta ser economista o estadista de genio para advertir la razón de la distinta forma de ver las cosas. Por un lado, un país que pesa decisivamente en la economía mundial, por otro muchos países que no pesan casi nada individualmente y que no actúan nunca en bloque; por un lado, una nación que está a la cabeza del progreso industrial, por otro, varios países que apenas si empiezan a industrializarse; por un lado, un país acreedor, por otro, varios países deudores; por un lado, un país donde el comercio internacional tiene importancia secundaria dentro de su ingreso nacional, por otro, varios países donde un comercio próspero significa abundancia y uno deprimido crisis aguda, etc., etc., y no hablemos de diferencias políticas y sociales que influyen de manera decisiva en la economía, pues las diferencias son iguales o mayores. ¿Puede extrañarse alguien que ambos crean poder alcanzar la prosperidad por distintos medios? Se podrá discutir si la política debe ser uniforme, pero nada más lógico que admitir una diferencia radical de visión.

Es mucho más fácil que los países latinoamericanos se pongan de acuerdo entre sí (a pesar de que con frecuencia consideran tener intereses encontrados y compiten entre sí en los mercados internacionales), que no con Estados Unidos. En las reuniones a donde concurran ambos, se podría trabajar con mucho más provecho si en vez de principios se pidieran y ofrecieran cosas concretas—un préstamo de tantos millones para tal o cual fin, las creación de un banco interamericano, etc.—y no se pretendiera fijar principios, pues cuando haya acuerdo no será sincero o carecerá del respaldo de la opinión pública.

REMARKS ON SOME ASPECTS OF THE ECONOMIC RELATIONS BETWEEN THE UNITED STATES AND THE LATIN-AMERICAN COUNTRIES

JAVIER MÁRQUEZ

Sub-Director, Fondo de Cultura Económica, Mexico, D. F.

I should like to begin by admitting that a good part of the economic concepts in vogue in Latin America among businessmen and government officials is open to question in the realm of abstract (and even non-abstract) thought, and I suppose that you have the same opinion of many of the ideas of American businessmen and statesmen. The economists of Latin America try to spread concepts more in keeping with their idea of a sound economic policy, and they have just as little success as many American economists have in their own country. In some cases we find it easy to convince an industrialist of the advantages of industry and a farmer of the benefits of agriculture, but it is relatively difficult to persuade an industrialist who is operating his factory as a result of a 100 per cent tariff protection that this is inadvisable. Also, it is difficult to convince a public servant that the agency in which he works is doing more harm than good, even though industrialists and farmers may agree on this point with the economist. It may seem strange, but that is the way it is.

I might venture an exposition of what I should like to be the pattern for economic relations between Latin America and the United States, and also make a few remarks concerning how I visualize the economic policy of some Latin-American countries or the mentality of businessmen, workers, etc., in different localities; for we all have a more or less defined economic philosophy, along with our political and social philosophies. It would be sufficient to present, with maximum clarity, my ideals for the structure and harmony of international relations. But this method would have certain drawbacks: first, it would disclose a secret that I have promised Javier Márquez not to tell any one for the present; second, that the result would be very far from past, present, and future reality; and third, that it would not be interesting to you.

Therefore, it seems wiser to say a few words about how some aspects of those economic relations might be made feasible, granted the limitations of material reality and the mentality prevailing in our countries.

By this I am not renouncing my profession of economist. I only wish to point out that, although economists should never weary of lecturing, even when their words may seem to fall on deaf ears, they should also face reality, trust that their ideas will slowly be incorporated into the mental reserves of the leaders of business and state, and, meanwhile, try to make the best of things as they are. It is useless to try to impose an ideal economic pattern which will conflict with the desires of those who

have the last word. It is not necessary to surrender what we believe in, but it is not always best to insist upon ideas which are doomed beforehand to defeat. I contend that the economist should distinguish between what should be and what it is possible to realize.

On this occasion I will especially try to present to you what I think are some of the prevailing opinions of Latin-American economic leaders. I do not always share those opinions, but their views are the ones that really count, and not mine; hence, they will interest you most. On the other hand, I shall also like to justify those views, for I think that they should not be discarded lightly; they are perfectly human and understandable, however much we might want to change them.

Let us begin by recognizing that it is not practicable for the leaders of a nation to act also as "citizens of the world," however much we should like it. We must resign ourselves to the fact that they will try to enhance the country they govern and that they will piously shrug their shoulders at the consequences of their actions on others. These aren't the words of a good economist; it isn't "what should be," but it is reality. Some of those in power act this way because they love their country above all else, others because they wish to conciliate the patriots to whom they will have to render account. Of course, I am somewhat exaggerating the situation, for no one is indifferent to the suffering of others, but the sacrifices which a country is willing to make to the benefit of another country are definitely limited. Often, economic "sacrifice," in the form of loans, gifts, food, etc., carries, together with its dose of humanitarianism, its political significance; that is to say, satisfactions difficult to measure in dollars and cents are bought, and all is not altruism.

In Latin America, the fear is always present that the economic aid which the United States would lend her may have that political significance; moreover, there is a very widespread thesis to the effect that no economic advantage exists great enough to compensate for the threat of some political influence. It is an opinion very generally held among all those who do not benefit directly from that aid, and among those who do not consider that they benefit enough from it; that is to say, among the great majority of the people. I believe that there is something to be said for that attitude, whatever may be my opinion concerning the economic welfare that such material aid has brought or will bring to us in the future. And I wish to note right now that the desire for influence, be it political, ideological, etc., on the part of the United States seems to me just as natural as Latin-American resistance to it. I am also willing to admit that that desire for political or ideological influence springs from a wish to do us good.

It is not easy for a great power such as the United States to aid small countries with a highly developed sensitivity. She has to contend with the taxpayers within and the beneficiaries without her borders. Every economist knows at what point a gift of merchandise is considered perfidious in the country which receives it. We all know that an enormous

proportion of the Latin-American population do not have enough to eat, but should America offer to supplement, free of charge, the diet of our people until it reached the ideal level, she would be committing the worst act of imperialism imaginable. If, besides food, she should offer us gratis good clothing, we would indubitably have a *casus belli*. The gift would not be regarded as humanitarianism, but as the worst kind of unfair competition. Although I am hopeful that the economic aid which America may lend to our countries will never go to such extremes, I want to emphasize this attitude, otherwise well known, and to say that it is not confined to Latin America. It is even more developed in the United States and all other nations.

If only economic interests were at stake, it would be enough to surmise that the United States would finally grow weary and leave us to shift for ourselves as best we could, without making further efforts to be agreeable. I am not going to take your time with the other motives involved, but their existence is a very palpable reality. The United States cannot remain unaware of them, as Latin-American countries well know.

There is no scarcity of Latin Americans who maintain the thesis that the United States does not want Latin America to progress, that she will do everything possible to prevent it by hindering the industrialization of our countries and by other methods. Certainly, this is not a serious thesis. It can be used as cheap demagogy, and I suppose that every powerful neighbor of poor countries must resign herself to such accusations, shrugging her shoulders or assuming a martyred expression. Of course, American exporters to our countries look with disfavor upon the establishment of competitive industries, and they may attempt (as they frequently have) to eliminate them, but that is not anti-Latin-Americanism, but plain competition: they make the same attempts when competition arises in North America. However, if they have any interest in the good name of the United States, American industrialists might do well to measure carefully the aggressiveness of their commercial practices, for whatever they do will be attributed to the country herself. With the mental climate today prevailing in Latin America, it is very likely that by not accepting the loss of twenty per cent of their exports to a given country, they run the risk of such antagonism as will lose them everything, for the compliance of Latin-American authorities with respect to their industries, in fiscal matters, tariffs, and exchange control, reaches considerable proportions.

The idea that the progress of backward countries does not prejudice their more advanced suppliers, as a whole, however much it may threaten some individual exporters, does not bear repeating and is one of the economist's contentions which has finally been assimilated into political circles. Consequently, it is one of the ideas which may be used as the basis for official policy. An enlightened government should be able to oppose the claims of an industrialist or farmer adversely affected by a foreign or domestic tariff reform, with the no less substantial claims of

those benefited by those measures. The United States has already made some progress in that direction with the reciprocal trade agreement program, but she has not dared, or has not been able, to carry it as far as it would have been desirable for us and for herself.

There is one thing certain, a reality that the United States and all great nations must accept: Latin-American countries—as well as every underdeveloped country which has, or thinks to have (which amounts to the same thing) possibilities for economic progress—are going to undertake, or have undertaken, the deliberate development of natural resources, of human and capital factors, making use of all the means available and which they believe effective to that end. If one nation considers that the policy of another nation, or that of the nationals of other nations, is detrimental to her, she will in order to reach her goal, endeavór to resist private or official pressures—whether of economic, of political or of whatever other character that may be brought to bear against her.

Thus, my opinion is that the attitude of the United States must be the consequence of two premises, the existence of which she should confirm: first, the reality of the staunch determination on the part of Latin America to follow that policy which, *ex ante,* most answers her needs; second, the desirability of the United States' having a good name south of the Rio Grande, and of preventing us from turning towards another country or group of countries in search of markets, capital, technical elements, and imports. If one of these two pillars be lacking, the best policy for the United States to follow would be the most selfish one; or, if you like, the most logical policy, from an economic standpoint, would be one which in the short and the long run would, *ex ante,* bring the greatest benefit to Americans as individuals and as a nation. I believe that the two premises are highly self-evident and, *moreover,* that the existence of the first should be well-received, for it is not likely to occasion the United States any economic injury, but quite the contrary.

Latin America wants to become industrialized. In some circles this is a mania. You may criticise it, just as I have criticised, in speech and writing, a hasty industrialization. But the movement is too strong to be opposed, in the event that it were thought best to do so because of supposed lack of the necessary elements for industry. The most that can be done, under such circumstances, is to *orientate the industrialization* towards the path that seems the most beneficial, or the least harmful. The last-ditch defenders of free trade and those convinced that our countries have no industrial future would do well, faced with the reality of the will to industrialize, to think a bit more about the possible orientation of industry, and spend less time attempting to deter its progress. It is worth more to have contributed modestly towards averting a possible (and very doubtful) catastrophe than to have the glory of alone having prophesied it.

Now then, in this connection there are two things on the part of the United States which Latin Americans do not regard very kindly: one is

that other countries should place difficulties in the way of our industrialization; the other is to so zealously help us to achieve it that the industrialization would no longer belong to us. I shall disregard the first-mentioned in order to spend a little time on the second.

If we put aside nationalistic movements and patriotic and chauvinistic sentiments, both respectable and semi-respectable, we still have weighty reasons to defend the attitude which opposes an "excess of aid." It is very painful to ask for aid in setting up an industry and, at the same time, deny to Maecenas any share in the profits which may be derived from his intervention. It is most absurd to permit the establishment of an industry and later look askance at the one who organized it and came out ahead on the deal. For this very reason, I have defended on other occasions the laws restricting foreign investments in our countries. But, since the last time that I dealt with this theme, I have become even more convinced of the case for this restriction, in the sense that *direct investments* are more dangerous than I had previously supposed.

Upon commencing my studies in the field of economics, I enthusiastically read Taussig's treatise on international commerce and the masterly study of Professor Viner on the Canadian balance of payments. I don't believe that any student can fail to read the latter work without being overcome with emotion at the way in which facts seem to obey faithfully the rules of classical theory: capital inflow, rise in prises, increase in imports; later, interest and redemption payments are greater than the inflow of funds: fall in prices, increase in exports, etc., etc. When it is discovered that the process goes on even without a rise and fall in prices, the faith in the self-adjusting mechanism is reaffirmed. Today, my faith in the mechanism has not yet completely disappeared, but, when confronted with the human problems of national economy, it leaves me rather unimpressed.

Can we apply the free trade doctrine of international commerce to direct investments? With direct investments there does not exist, in principle, *redemption* of any loan; there is no transfer of *interest* but only of profits; and, worst of all, *there is no loan.* We have only this: direct investments. Short term advantages are obtained, doubtlessly.

Anyone who has gone through a school of economics is well acquainted with the advantages of direct investments over portfolio investments, or, rather, investments in fixed income securities. Not only is the investor more interested in the returns on his investments, but also the payments by the "debtor country" will probably lead to less difficulties in the balance of payments, for payments will be larger during periods of prosperity, or, in other words, when the paying capacity is greater. On the other hand, other kinds of investment may come to be an insupportable burden during bad times. But the story doesn't end there. The viewpoint of the leaders of Latin America's economic policy is, for practical purposes, what may be of more concern. They do not always argue against

such investments with well-founded reasoning, or, at least, they do not in every case defend their thesis with arguments acceptable to an economist. Sometimes they support them with stale, demagogic ideas, or what have you; but, on other occasions, they come out with ideas that a disinterested economist may find valid.

Let us disregard opinions which result from pure nationalism—which are not at all unimportant, but should be added to economic opinions—and we find, for example, when we deal with mining industries which are operated for export purposes, the argument of the exhaustion of natural resources. In these industries, so the critics say, the little that Latin America gains in salaries and taxes does not compensate for the harm that is brought about. By the time that we are finally equipped to process raw materials within our own borders, we will find that their intensive exploitation for export has only left us meager unprofitable resources. Thus, in exchange for a few days' wages and some negligible taxes, we will have deprived ourselves of the real benefits which we could have obtained from those resources. Moreover, the greater part of those investments for export only furnish us foreign exchange for an amount equivalent to the wages and taxes, less that which is included in the sale of the product within the nation. If the wages and taxes were but a small fraction of that amount (and that is the predominant opinion), a substantial difference would remain which does not revert to the country (which does not provide us with the foreign exchange to pay our outside debts), nor does it represent the redemption of a loan which would some day let us reap the full benefit from the export. The richer our resources, the less, proportionally, our benefit.

Now, it appears that direct international investments (with or without national participation) is being orientated more and more towards the production of articles and services to be consumed in the investment country. (Let us leave railroads out of account for they are nowadays more a laboratory of economic research in the field of investment than a present or future reality.) Here the Latin American complains because the foreigner shares practices followed by many of his fellow nationals, of unabashed exploitation of the consumer. Legislation, in some instances, and conditions, in others, which have been created to allow some producers a rapid accumulation of wealth, also favor the foreign investor. In this case, the export of the profits of foreign enterprise adds to the disadvantages (and the advantages, it should be stated) of that situation, the problem of pressure on the balance of payments. This is the reason, among others, that some who voice public opinion[1] have requested that foreign investors be obliged to reinvest part of their profits and that they only be permitted to take out of the country a "reasonable" or "legitimate" part of their gains; although I also know

[1]For example, the labor leader, Vicente Lombardo Toledano, in a speech to the National Assembly of the Revolutionary Sector of Mexico, September, 1944.

of cases where there has been objection to the magnitude of foreign holdings which were accumulated precisely by reinvestment. Doubtless, the reinvestment solution, if we wish to avoid balance of payments problems, is only sound if we accept a rapidly diminishing marginal rate of profit on capital. Otherwise, we will only postpone the problem, which will come up much more seriously in the future, when to the profits derived from the first investment are added those obtained from reinvestment; and a diminishing marginal rate of profits is not very likely for a long time in Latin-American countries.

Thus, together with the reasons which have been set forth (naturally, I have left out the demagogic ones), we have the permanence of direct investments. The country of investment and her nationals have no chance to "nationalize" those investments. For such a thing to happen, a war is generally necessary which will force the investing country to surrender them in order to obtain foreign exchange; or some act along the line of the oil expropriations, which is even less conducive to the entrance of foreign capital, or to the harmonious development of international relations, however justified it may be considered.

I believe, along with many Latin Americans, that North American investments are very desirable for our economic progress. At the same time, some of the objections to that capital seem justified or, at least, the reality of the environment which dominates our countries seems inescapable, and I deem the desire to "nationalize" some time or other such investments a very legitimate one (although not only for economic reasons). Would it not, therefore, be possible to establish a plan to that end and to provide somehow that the countries of investment be given the option to take them over at the end of "x" number of years (let us say, twenty) through payment of their present value? I realize that such an arrangement should be supplemented by a series of measures which would tend to create a greater inducement for the investor, to guarantee the maintenance of capital, to establish standards fixing the present value of the investment, etc.; but I also believe that, though difficult to plan, such an arrangement could be made workable.

One more point, and an important one in dealing with the problem of investments: the fields in which they may be carried on. Granted that the United States is interested in a prosperous Latin America, for that is the best insurance that she will be a good market for American products, that she will be able to pay her foreign debts, that she will modify her sensitivity as regards "Yankee imperialism," and that the United States will have in us a firm ally, then we still have to admit the importance of the kind of activity promoted by foreign investments, for sometimes the creation of a new economic activity which is very profitable for the national or foreign investor may be a weakening element for other, sounder, sectors of the economy. Agencies such as the Export-Import Bank, the International Bank for Reconstruction and Development, and the projected

Inter-American Bank should assume greater importance. One such international institution, capable of weighing with a clear mind the feasibility and desirability of certain activities *for the country of investment,* and which should *channel* the new investments, could be, besides a guarantee for the investor, a very useful brake to the immoderate desires for industrialization which spring up in our countries.

The fear of the accumulation of uneconomic activities, which I share with other economists, has only to a small degree penetrated to the mentality of those who are in a position to decide the course of the economic policy of our countries. I say it has only penetrated to a small degree because there are indeed traces of it. We are aided in this case by the vested interests, which defend traditional economic activities and see them in danger before the advance of the new spirit. To the extent which those interests defend "sound" activities, they act as a brake to slow down an unduly rapid rhythm of pseudo-economic progress. But in good part those vested interests are a reactionary element, and they defend the indefensible with as much zeal as, if not more zeal than, the legitimate—the unprofitable and burdensome as much as the sound. The governments, somewhat complaisant, as I have already stated, with the new industrial interests, do not permit themselves to be drawn along without resistance; and, perhaps because of the brake of the vested interests, along with their declarations for industrial progress, they make a show of moderation and of respect for the consumer.

To this extent, the governments trail the new economic interests, but they contribute to a healthful restraint of a precipitous economic development along mistaken lines.

It would be desirable to have prevail in the progress of productive activity a spirit similar to that which we find among economists (Prebisch and Urquidi, for example) and statesmen relative to foreign exchange control; in other words, a fine discrimination between what should be considered essential and what should not. Exchange control is the next point to be discussed.

It seems to me that we have very clear evidence that the countries of Latin America will try to use the monetary weapon to their advantage. (Their resistance to accepting the Bretton Woods agreements is an obvious indication.) Although the countries south of the Rio Grande cannot control the exchange situation as strictly as the more organized and advanced countries, nevertheless, the monetary authorities of Latin America have learned the technique of that control and are ready to employ it, insofar as possible, in whatever they believe may be beneficial to them. All the more since they know that, having little influence individually in world economy, their actions are not likely to lead to reactions from either their customers or their suppliers.

All economic textbooks, and many others which are not textbooks, explain the disadvantages of violent price fluctuations, the advantages of

stability, the insecurity created in business by the ups and downs of the purchasing power of money. Let us omit the problem of domestic purchasing power and concentrate on its international aspect. Ups and downs continue to be harmful, but there are times when stability is more so, for it may mean the loss of markets and other difficulties. In the face of this, monetary administration appears to be a solution or, better expressed, a weapon which a weak country may use to counteract certain hardships arising from international economic relations. It is a handy weapon, when necessary, to make basic or structural adjustments easier. Exchange control, with all its faults, imperfections, and what have you, is on the way. It is a technique which, more or less, is available to any government; it has been used for many years to solve balance of payments problems, and has been persistently recommended as the quickest way to channel imports toward those goods which are thought most necessary to the economic progress of the country. Hence, foreign exchange is allocated to those goods and not to others.

The United States produces a good part of the merchandise which Latin-American countries will always consider essential to their economic progress. If some of our countries impose a discriminatory exchange control, it will be precisely to divert their purchases not from one country to another, but from certain merchandise to others. Even supposing the existence of an exchange discrimination by countries, could the United States complain that the countries of Latin America were seeking an adjustment of their balances of payments along monetary lines? So long as North America has a tariff with which she attempts to protect herself from real or imaginary competition, is it not fair for other countries to protect themselves against real or imaginary dangers by means of tariffs or other procedures that may seem more efficient? I am perfectly aware of the theoretical and practical arguments which may be raised against this thesis, but whosoever does not accept it must agree that both in theory and in practice may be found weighty arguments to defend it. At least, and this is my viewpoint, we must agree that there is a great likelihood that monetary control in the field of foreign exchange will become a reality; and, consequently, as long as other solutions are not more favorably regarded, it will be better to try to make the best of the actual situation and to agree that there is some justification for exchange control.

If the American government is not prepared to reduce the import duties on certain commodities crucial to the economies of some Latin-American countries, perhaps it will not put forth so many objections to a devaluation of the currency of those nations. The result is in some respects the same, and it is possible that devaluation would stir up less reaction, since protection, or "aid," may be provided by omission rather than by action.

We have lost all hope that the United States will reduce her tariff, in competitive merchandise, to a degree which would mean a substantial

aid to our countries. The United States is already "protected" against foreign competition. Latin America is now beginning to "protect" herself, and, in consequence, her tariff provisions are scaled upward. Tariff changes in the United States can adopt a liberal appearance, but hardly ours.

Exchange control is sometimes a subterfuge to avoid the obligations imposed by trade agreements (as import quotas were in their time), which, without violating the letter of the international agreements, try to influence the balance of trade. Exchange control achieves the same results by a procedure which is more indirect and much more flexible.

Our purchasing power for imports has definite limits and, moreover, is subject to severe fluctuations due to the price movements of our export products (which, it is well known, are more susceptible to price falls than manufactured products) and to the protectionist tendencies of the importers. We want imports, and we want to pay our foreign debts; we are not ready to endure the domestic adjustments brought on by the free play of chaotic international economic relations. Then, if we set up a preference scale for foreign goods, exchange control permits us, on the one hand, to regulate the amounts spent on each commodity, and, on the other hand, to favor those imports which seem to us desirable for our economic progress and the well-being of our compatriots.

No one imposes exchange control just for the pleasure of bureaucratizing his economy or because he wants to bother his neighbor. When it is established, it is because (rightly or wrongly) it is felt necessary to keep in reserve foreign exchange for certain uses. The ideal would be to have such an abundance of foreign exchange for every use that there would not be felt any need for regulating or orientating its use.

I agree that this weapon of control may be used, and has sometimes been used, unduly. Deplorable failings exist in all institutions created and directed by man. But this does not invalidate the principle. We all want those who direct the economic institutions to do so with honesty and wisdom. Our criticism should be to that end, but the failure of a few men does not rob the institution of its worth.

Would it not be well, then, for the United States to look kindly on the practices of exchange control in our countries, with the understanding that, among other things, they are only aimed at counteracting the imperfections of international markets, which are entirely beyond our control? What is to be preferred—that we buy automobiles and do not pay our foreign debts, or that we pay the debts and do not buy automobiles? Often we do not have money for both, and many Latin Americans would rather go driving in an automobile than pay their debts. But since we want our loans continued, in the hope of being able to buy more automobiles within a few years, we shall try for the present time to be less frivolous.

When exchange control becomes a permanent practice and is increasingly emphasized, we will have evidence that where that happens there

is a basic maladjustment in the economy. The remedy at that time will not be to do away with that control, but to act along other lines.

This is, I believe, the Latin-American point of view on exchange control.

The last aspect of the economic relations between Latin America and the United States with which I intend to deal concerns the attempted planning of those relations.

Captains of North American industry have greatly accustomed us to flattery. Hardly a week passes that one of them, passing through our countries on vacation or exploration, does not tell some journalist that the future of the world lies in Latin America, that we are called upon to play an important rôle in world economy, and that, therefore, he is planning to invest an impressive sum of dollars in our beautiful country. But we are already tired of this flattery; for my part, I would say that I am fed up.

When a North American statesman promises something especially good or seems to favor certain measures that would be very desirable for us, the project comes up against the opposition of North American vested interests. But it is worse yet when it is a question of finding a single standard of economic policy for both the United States and the countries of Latin America.

As an example of an attempt to arrange inter-American economic relations, we have the recent one of the Chapultepec Conference which took place in February and March of 1945, and where even an "economic charter of the Americas" was adopted.

One of the observations that may be made concerning the reactions to the charter is that the comments which it elicited among Latin-American economists can be counted on the fingers of one hand. As long as the Conference lasted, the newspapers talked of nothing else, but, once ended, there has hardly been a word about its economic aspects. This seems to me evidence that our public has little faith in the words and documents which result from those international reunions.

The resolutions of the Conference contain much that goes far beyond the western hemisphere, much which is not possible of solution without taking into account the rest of the world. It is, therefore, useless to define objectives which will later have to be modified. In particular, I am thinking of all the "exceptions" to the liberal thesis which refer to the control of trade in raw materials. The scope within which these problems can be solved by the Americas is so limited that it wasn't worth while sullying the pristine purity of the North-American delegation's idealistic free trade with those exceptions. The countries of Latin America were the ones who most emphasized them. We may say that the Latin-American countries agreed to adopt the general principle of freedom of trade with the greatest solemnity, provided that it was established that they reserved the right to do as they pleased with trade in raw materials, which is the only thing that basically interests them so far as foreign trade is concerned.

Two Mexican economists (Daniel Cosío Villegas and Víctor L. Urquidi) have respectively written articles on the conference with varying degrees of passion and breadth. I cannot go into them here,[2] and I shall only say that in one the Conference fares rather badly and in the other it is subjected to severe curtailment. Both commentators point out the impossibility of applying the same criterion to Latin America and the United States, and that it is useless to assume that our countries will refrain from State enterprise (as the American delegation would have liked). The two economists have paid as much or more attention to amendments proposed by the Latin-American delegates as to the resolutions themselves, and both have paid homage to the sincerity shown by the North American delegate Clayton, saying some things that did please us and some that did not please us.

With a great deal of what my colleagues say I am in complete agreement, and with certain parts I fundamentally differ. An examination of those economic agreements would take at least a whole lecture, and, therefore, I am only going to bring up certain points of special importance to our subject.

I might say a few words about the splendid distinction[3] between laborers, producers and consumers, but I would be getting far away from my subject. I shall be satisfied with the request that if anyone knows how to go about becoming a member of the consumer class, will he please tip me off. Neither do I wish to emphasize such nonsense as the declaration[4] that it will be attempted to remove, as far as possible, the obstacles which hinder economic progress, because to attempt anything else would be fantastic.

It would be difficult to disagree with some of the resolutions which were approved, such as the one on reorientation of production towards more economic activities, when costly surpluses are being produced systematically[5] or others referring to industrial development[6]. But there are so many commonplaces and vague phrases which make no commitment that it is doubtful if the Conference, in an economic sense, accomplished more than making possible (which is not to be underestimated) an exchange of impressions among the delegates and experts of the different countries. As for facts, realities, advantages gained by our countries, we still have had no sign of them. The preceding economic meetings which took place during the war did have some results. At that time, the United States made concrete proposals and then carried them out (and would have done

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[2]See: Daniel Cosío Villegas "La Conferencia de Chapultepec", in *Cuadernos Americanos*, IV:3 (1945); Víctor L. Urquidi "Problemas Económicos Planteados en la Conferencia de Chapultepec", in *Boletín del Banco Central de Venezuela*, IV:16 (1945).

[3]Resolution XV and others.

[4]Economic Charter, Statement of Principles No. 9.

[5]XLVI, 2nd Resolution.

[6]For example: L, Resolution 1.

so even without the conferences); now it was more a matter of bringing things to an end, to which the countries of Latin America opposed.

It has been very common to point out the low rates of the North-American tariff on Latin-American export goods to demonstrate that Latin-American complaints against the protectionism of the United States have no foundation. We can confront this attitude with three arguments, two of which have already been thoroughly dealt with (which, however, does not make them any less valid). The first, that there are many export goods of Latin America which encounter tariff and other difficulties in North America (such as grains, meats, sugar, and many minerals). The second, that statistics only show what enters in spite of the duties, and that should there be no duties, Latin America would today enjoy a production which we do not have precisely because of the American tariff. And the third, which I am surprised not to have read about even in Latin-American writings, is an elementary application of the free trade principle of multilateral commerce. Latin America is not unconcerned with American industrial protectionism, for if other industrial countries should find a market in the United States, they would also have more foreign exchange to buy our exports. Those other industrial countries would feel less obliged to be protectionist and so our goods would enter with greater facility. United States protectionism deprives us of markets outside the western hemisphere. The fact that England cannot sell product A to the United States keeps England from buying our product B, with the result that we cannot buy in the United States, England, and Sweden merchandise C and pay debt D. This is the A B C D of the theory, and the reality, of international trade and I am not going to labor the point.

Although in the Chapultepec Conference the thesis of freedom of trade was taken as a general principle, it seems that tariffs were not considered a violation of that freedom, and the only ones so considered were import regulations, exchange control, State enterprise, etc., etc. This is a criterion that is becoming very widespread and is giving the freedom of trade concept a completely arbitrary meaning.

In meetings only participated in by Latin-American countries, problems of principle could profitably be discussed, should it be thought desirable to reach some agreement as to the suitable orientation to be given each one's foreign policy with respect to the foreign colossi. But it is not possible to assume, and both North and Latin Americans concur in this, that the countries to the south of the Rio Grande would wish to follow the economic policy of the United States. It may be argued whether they do well or not in adopting this attitude, but it isn't necessary to be an economist or a statesman of genius to be aware of the reason for the different viewpoints. On the one hand, we have a country which carries decisive weight in world economy; on the other, many countries that have no individual influence and almost never act as a unit. On the one

hand, we have a nation which leads industrial progress; on the other, countries that have hardly begun to industrialize. On the one hand, we have a creditor nation; on the other, debtor nations. On the one hand, we have a country where international trade has a secondary place in the national income; on the other, countries where a prosperous trade means abundance and a depressed trade means acute crisis, etc., etc. We need not mention the political and social differences, which conclusively influence the economy, for the differences are equal or greater. Can anyone be surprised that each believes that prosperity may be achieved by different methods? It can be argued whether the policy should be uniform, but it is perfectly logical to admit a fundamental difference in approach.

It would be much easier for the Latin-American countries to come to some agreement among themselves (despite the fact that they often consider their interests to be conflicting and that they compete with each other in international markets), than to do so with the United States. In meetings attended by both it would be possible to work much more profitably if, instead of principles, concrete requests and offers were made—a loan of so many millions for such and such a purpose, the creation of an Inter-American bank, etc.—and that there were no attempt made to establish principles, for whenever an agreement is arrived at, it will either be insincere or it will fail in the support of public opinion.

PETROLEUM AND THE INDUSTRIAL PROGRAM OF LATIN AMERICA

EUGENE HOLMAN

President, Standard Oil Company (New Jersey)

The future economic progress of the nations of Latin America, which is the subject of this conference, is a matter of great importance. It is, of course, primarily of importance to the people of those nations. But the future of Latin America is of significance to the entire world. Today the economic status of one nation or area is related to the development of all the others.

The Latin-American republics stand on an expanding frontier. Their development has been accelerated by the necessities of the recent war. The United Nations found themselves desperately in need of materials which Latin America could supply. The new industries which have sprung up to meet these wartime conditions give evidence of what can come in Latin America. Here can be a strong, growing economy, built on the great natural resources of the Latin-American countries, with capital-goods industries evolving from basic consumer-goods industries, and with the whole supported by a balanced and efficiently productive agriculture. Such an economy can benefit not only Latin America, but the world.

To bring the products of one nation to the consumers of another, to bring the abilities of one people to the benefit of another, to raise standards of living, will depend upon world trade. An expanding world trade is one of the most important foundation stones of a bright future. Civilization will grow as trade grows among the Americas and among other nations of the globe. In world trade Latin America has assets which should make it one of the most favored areas.

A little over a year ago the representatives of the American countries met in Mexico City at the Inter-American Conference on Problems of War and Peace. Of the many things which they discussed, one of the more important was the postwar economic pattern. From their discussion came the Economic Charter of the Americas.

Reflecting the determination of the peoples of the Americas to live and trade in peace and security, the Charter stresses as a sound basis for economic progress the development of natural resources; increased industrialization; improvement of transportation; modernization of agriculture; and the encouragement of private capital, managerial capacity, and technical skills.

The last part of the Charter consists of a declaration of ten important principles, of which I will quote from three:

> To coöperate for the general adoption of a policy of international economic collaboration to eliminate the excesses which may result from economic nationalism. . . .

> . . . to take appropriate steps to secure the encouragement of private enterprise and to remove as far as possible obstacles which retard or discourage economic growth and development.
>
> . . . to find practical international formulae to reduce all barriers detrimental to trade between nations in accordance with the purpose of assuring all peoples of the world high levels of living.

While the Charter applies to all trade, I would like to discuss the place of the oil industry in this picture and how, by following these principles, it can be developed to the welfare of the peoples of Latin America and elsewhere.

All of Latin America is conscious of oil. All of Latin America wants to benefit from oil. Oil, properly developed and utilized, can be a keystone for the whole industrial, and with it the agricultural and commercial, development of the Americas. Oil is essential both in the internal development of Latin America and in securing the position of Latin America in trade with the rest of the world.

Transportation, which is fundamental to an advancing civilization, is difficult to conceive of without oil. Industry depends upon oil—for lubrication, for fuel and for processing agents. Particularly in some areas of Latin America, oil may very likely compensate for what would otherwise be an obstacle to the growth of industry—the difficulty of access to coal reserves. I hope, for example, it is not too adventurous to say that means may be found, and we are searching for them, to make metallurgical coke from petroleum as well as from coal. Oil will, in time, serve other basic uses for which coal up to now has been essential. Oil will help provide the insecticides to control insect-borne disease; it can play a part in providing chemical fertilizers to promote agriculture. Oil will pave the roads on which the commerce of the Americas will flow. Oil may also be a principal source of foreign exchange for Latin America for many years to come. The Latin-American nations can become increasingly one of the important sources of oil for other nations which need it. And those oil-importing nations will, in exchange, return goods and services contributing to the progress of Latin America.

The benefits of properly developed oil are evident here in Texas. As a Texan, and being back in Texas today, I am especially conscious of the example given here of the relation of this commodity to the wealth and strength of this state, and of what Texas oil has done for this nation as well as other nations.

Early in our history the economy of Texas was largely based on "cotton, cows, and corn." And while Texas is still the leading state in the growing of cotton and the production of beef cattle, it has also become, since the beginning of the century, the country's largest oil producer. Oil and industries depending on oil have helped make it one of the leading industrial states in this country.

Within ten years of the discovery of oil in Texas in 1901, manufacturing in the state increased almost 200 per cent. The development of the oil industry here has vitalized and virtually transformed the state's eco-

nomic life. One of every six of those who live in the state depends directly or indirectly upon the petroleum industry for a livelihood.

Texas oil travels to all parts of the world. Tanker traffic has made it possible to develop the harbors, and according to the latest available figures, six of the twenty leading ports in this country are in Texas.

During the war, synthetic rubber tires to equip our military machine and a high proportion of the explosives dropped on the enemy were manufactured from Texas oil.

In many parts of the country men are earning their living manufacturing equipment for the oil fields of Texas—pipes, tanks, valves, pumps, compressors and a host of other things. The oil industry provides good jobs for thousands upon thousands of people. It contributes to the national welfare in innumerable ways.

The experience of this state and this nation is significant because the United States has produced to date some 60 per cent of all the oil produced in the world. This is not because we were favored with exceptionally large supplies of this natural resource. As a matter of fact, geologists estimate that only some 15 per cent of the total potential oil supplies in the world lie under the soil of the United States. How does it happen that we have been able to produce so much of the world's oil? It is simply because activity in the oil business in the United States has been on a scale far greater than anywhere else. In our country everyone has a chance to engage in any legitimate business he wants to. If the business is oil, he is free to go about it as he wishes. Anyone can enter the business whether he be rich or poor, a citizen of our country or a foreigner. Because men have been free to search for oil here and have had adequate financial incentive to do so, they have gone to the four corners of the country exploring for oil. In doing so they have discovered and produced quantities matched by no other country.

Most geologists agree that there is an abundance of oil, too, beneath Latin-American earth. But, it must be realized that it takes more than favorable geological conditions to find and to develop oil, and particularly oil which must find its main outlet in international trade.

Oil is a fugitive resource. In many of the great potential producing areas of the world, oil production has yet to be established in any appreciable volume. No one has yet devised even a reasonably approximate method to know precisely where and how to find oil. To be sure, we have advanced knowledge and some intricate devices which greatly assist in the search. These have reduced the margin of failure. But production is achieved only when a test well encounters a reservoir capable of yielding the hydrocarbon fluid with which it is saturated. In an undeveloped area, even with the most modern scientific aids, millions of dollars must be spent before even the existence of oil is verified and many millions more before practical commercial possibilities are demonstrated.

Further, the ability to produce oil from the ground is only a start. For oil has little or no value until it is transformed into a wide variety of products, usually by the use of complex and costly equipment, and is finally brought to the consumer. Having discovered oil, we are faced with the problem of transporting it, of refining it, and, no less important, of finding a market for these products in competition with other sources of oil and other means of doing what the oil product does. These other means which compete with oil are not idle talk. Technologists today speak increasingly of conversion of natural gas to liquid products—of utilizing low cost coal deposits or even coal waste to convert to gasoline, of developing tar sands and other low grade hydrocarbon resources. And all of these questions take on an even greater reality today because of the appearance upon our economic horizon of a vast new and potentially low-cost source of energy—that derived from nuclear fission.

Sometimes it is easy to find a suitable market for newly discovered oil. Other times it is extremely difficult. There are, for example, known oil fields which have no value whatever—simply because the cost of transporting the oil, converting it into useful products, and delivering them to the market is greater than alternative methods of achieving the same ends.

These are factors affecting every effort to develop oil resources. They are important in the consideration of every venture. The likelihood of success over a long period of time must be weighed against the possibility of failure. Restrictions which minimize the present or potential value of investments have the effect, to a greater or lesser extent, of minimizing activity in the search for and development of oil. They always discourage in some degree the investment of capital and the application of experience and skill.

If the world, and Latin America in particular, is to produce the oil it can and should, the long-range outlook toward the oil business should not be one of increasing restrictions, but of reducing them so as to increase activity in the business and increase thereby the benefits flowing not only to the country of origin but to all with whom the country deals.

Today, however, a tendency is apparent in many countries to limit activity in oil. These restrictions are based upon a conviction that a nation having oil should itself benefit to the maximum from this resource. No one will seriously dispute that conviction, but there may be room to question whether in the long run a policy of restriction will actually lead to maximum benefits for the nation owning the oil. There is a great deal of evidence that this is not, in fact, the case.

It may appear, for example, that the major benefit from oil is lost to a country unless the commodity is produced and dealt in only by nationals of that country. The evidence does not support this. Oil is essentially an international commodity. Of the nations in the world only the United States (and possibly Russia) shows an approximate balance of produc-

tion and consumption. The other nations of the world either import oil to meet their own needs or export oil to meet the needs of others. Even the United States, according to some estimates, may, in time, have to increase the ratio of imports to exports in order to keep its internal oil economy at the most efficient level. So the over-all oil industry of a nation cannot be considered strictly as an internal matter. Capital may need to be invested in one country to provide products needed by another. By this process both nations benefit. If either the exporting or the importing nation attempts to get an unreasonable share of the value of the product, or puts obstacles in the path of this interchange, then in the long run both will suffer.

It may be thought that in a nation where the chief oil activity is that of crude production, the only contribution that privately produced oil makes to the national wealth is in the form of royalties. But royalty payments to a country are only a fraction of what it derives from oil operations within its borders. There are internal taxes. There are the wages of workers, materials purchased within the country, bank deposits, insurance, and all those collateral activities of the oil business that stimulate commerce and industry in general. Last year Creole Petroleum Corporation (an affiliate of Standard Oil Company—New Jersey) and one of the largest United States companies operating in Venezuela showed in its annual report that 73 per cent of its income during 1944 was expended either as direct payments to Venezuela or for expenditures of substantial benefit to Venezuela. And, in passing, I might mention that 95 per cent of the workers on the payroll of Creole, including some of the topmost management jobs, are nationals of Venezuela. The benefits to be derived from oil come not so much from the primary fact of occurrence and production but from the secondary fact of the industry and revenue thus created. The important thing is to have the industry.

Sometimes, also, there is a failure to appreciate that the ability to find a market for crude is just as important as ability to produce it. Oil is a highly competitive commodity; its marketing is complex. Oil from one area not only competes with that produced elsewhere, but oil must compete with other energy sources. Almost without exception, oil must be moved great distances from where it is found in order to reach a market. In many cases, a decade or more of time and large sums of money must be spent between the day when oil is found in an area and the day when that oil reaches the ultimate consumer. An important factor in promoting and maintaining the economic benefits resulting from oil, therefore, may often be the services of commercial organizations experienced in these activities. The real value of the oil is not in the ground but in its use in world commerce.

Still another factor to be considered by a nation is the benefit which can be brought to any country by competition in a worldwide business. The result of the active competition in the business of oil has been more and

better petroleum products, at continually lower costs, delivered with greater convenience to all consumers. For any nation to close the door to competition is to deprive its own citizens of developments elsewhere that may be of important benefit to them. Charles Kettering once said, with reference to research laboratories, that when the door is closed to keep discoveries to one's self, much more is locked out than is kept in. I think the story is much the same with reference to the development of oil. Nations who close their doors in this field will find they have kept out far more than they have kept in.

I do not for one instant minimize the importance of sovereignty of nations in this respect. This is as obvious an essential to a nation as individual rights are to individuals. I do point out, however, that sovereignty when extended to exclude and hamper trade, and particularly foreign trade and even more particularly oil, can act to harm and not benefit the citizens of those nations.

My remarks are about oil. Logically so, for it is the business with which I am most familiar. I have a feeling, though, that the considerations which face the Latin-American nations in oil face them also to a greater or less degree in the development of other of their important natural resources. I would like to see all the commerce of all the Western Hemisphere developed to the benefit of all the nations in it. I believe in doing so these nations will find how to live together and benefit each other commercially. In doing so, all of their peoples will benefit—in better living conditions, in greater enjoyment of material goods, and in still greater friendship and better mutual understanding in the political sphere.

The men who wrote the Economic Charter of the Americas must have had the same basic idea of freedom in mind when they wrote the program for the promotion of a new and better economy for their Republics. Freedom of economic action, promotion of private enterprise, just and equitable treatment, that is what they called for. They foresaw the development of the destiny of Latin America, and they outlined a proven idea of how best to fulfill the promise which the future holds.

In the discussion period following the reading of his paper, and in response to a query, Mr. Holman made the following suggestions as to what foreign capital may reasonably expect and also what the Latin-American governments may expect in return:

The assurances which American citizens have usually sought from a foreign government in undertaking the development of oil resources under a concession from that government are:

1—Security of title to the property or rights acquired.

2—Managerial control of their own operations.

3—The opportunity to make a reasonable profit from the enterprise. Given these assurances, concession contracts may take a variety of forms; they may provide a straight royalty to the government; they may share profits with the government; or they may become "mixed company" operations with the government. Local capital may be admitted to the enterprise if it desires to participate.

The foreign government which lets oil concessions to private individuals or companies will properly insist:

1—That an adequate participation in the proceeds from the enterprise come to the government;

2—That operations shall be so conducted as to contribute to the domestic economy of the nation;

3—That domestic demands for oil be fully satisfied at low prices before any oil is exported;

4—That development and production proceed in an orderly manner with no avoidable waste of the natural resource;

5—That the enterprise give to local citizens the maximum of training and employment at fair rates of compensation; and

6—That oil and oil products available for export move to market in fair volume at fair prices.

THE TECHNOLOGICAL FUTURE OF THE LATIN-AMERICAN COUNTRIES

PHILIP W. HENRY

Former Chairman, Joint Committee on Inter-American Engineering Coöperation, New York

The technological future of the Latin-American countries, in common with that of all other countries, will depend upon the development by technologists of the agricultural and mineral resources of those countries; and the rate of development will depend upon the availability of domestic and foreign capital, and upon the capability of their people and of their governments.

The twenty Latin-American countries have a total area of 7,840,317 square miles and a population of 134,138,244.[1] In area they are 2.6 times, and in population about the same, as the United States, with an area of 3,022,387 square miles and a population of 136,485,262. There is little doubt that these countries can easily support more than double their present population. These twenty countries, for convenience, will be divided into four groups: Mexico, Central America, the West Indies and South America.

In considering Mexico, with an area of 758,258 square miles and a population of 21,153,521, we find that it is one of the richest mineral countries in the world, with its production of silver, gold, lead, zinc, copper and petroleum. Although not abundant in coal, there is sufficient for a reasonable production of iron and steel for the domestic market. Mexico is a leader in the production of silver and petroleum, and for a time she ranked second in the world production of the latter. In recent years her production of petroleum has declined, partly due to the dispute between the government and the foreign oil-producing companies, which culminated in 1938 in the expropriation of their properties by the government. Since then amicable arrangements have been made with most companies, and the production of petroleum will soon show considerable increase. Mexico has important agricultural products, as well as cattle, most of which are consumed locally. The Indians who occupied Mexico prior to the Spanish conquest, early in the sixteenth century, were well advanced in civilization, and they still furnish the backbone of its present population of which 29 per cent are pure Indians, 61 per cent mixture of Indians and whites and only 10 per cent whites. The mixture of whites and Indians has been fortunate, and we can look forward to the continued development of the agricultural and mineral resources of the country.

The six Central American republics: Costa Rica, Guatemala, Honduras, Nicaragua, Panama and El Salvador, have a total area of 235,701 square

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[1] Areas, populations and most other statistics have been taken from the *Pan-American Year Book*, 1945.

miles and a population of 9,227,103. Their natural resources are much the same: scant in mineral but ample in agricultural. Gold occurs in all, but in a rather negligible quantity, except in Honduras where the well-known Rosario mine produces both gold and silver. Bananas, coffee, cacao (cocoa) and chicle (chewing gum) are their chief exports. These countries differ considerably in the derivation of their population. In Costa Rica nearly all of its 705,000 people are of pure Spanish descent. On the other hand Guatemala's population of 3,450,752 is made up of 60 per cent Indian, 10 per cent whites and 30 per cent mixture of the two. Honduras, Nicaragua, Panama and El Salvador more nearly follow Guatemala than Costa Rica in race composition.

The three republics in the West Indies, Cuba, Dominican Republic and Haiti, have areas respectively, 44,164, 19,332 and 10,850 square miles, and populations of 4,778,583, 1,969,773 and 3,000,000. Although many minerals, particularly copper, occur in all these countries, it is only in Cuba that copper, iron and manganese have been exported in quantity. Cuba is one of the great sugar producers of the world, and the quality of its tobacco is well known. Both Haiti and the Dominican Republic find sugar a primary crop, and Haitian coffee is well esteemed, especially in France. Bananas are a profitable crop in all three countries, while recently Haiti has been exporting sisal and cotton. Cheap labor is assured, particularly in the Dominican Republic and Haiti, with their predominant Negro population. In Cuba 30 per cent are given as Negro and 70 per cent white. Haiti is the most densely populated nation in the New World, having 275 persons per square mile.

The ten South American countries, Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Paraguay, Peru, Uruguay and Venezuela, having a total area of 6,772,012 square miles and a population of 94,049,264, will now be considered in detail. Argentina, having an area of 1,084,935 square miles and a population of 13,708,386, has little mineral wealth except petroleum, the production of which is sufficient for about 70 per cent of its domestic needs. Although gold, silver, lead and a few other metals have been produced on a small scale, there is nothing to indicate that they will become important. Argentina is essentially an agricultural country. Prior to the war Argentina was the world's leading exporter of corn and linseed and one of the chief exporters of wheat. The production of meat is the most important industry, and some of the packing plants are as large as those in Chicago. Most of these plants have been built and operated by British and American capital. Argentina has supplied three-fourths of the world's exports of chilled beef, and was the second largest exporter of mutton and third of wool. Other important industrial operations are bakeries, textiles, machinery, vehicles, metal products, printing and tanning. The population is almost entirely of European descent, chiefly Spaniards and Italians. Buenos Aires, its capital, has a population of 2,500,000, the largest city in Latin America.

Bolivia, with an area 416,040 square miles, is different in every way from Argentina, her neighbor on the south. Eighty per cent of her population of 3,533,900 live at an altitude of 10,000 feet and over. Indians form 54 per cent of her population, whites 14 per cent, and mixed 32 per cent. The Indians are the most sad and apathetic that I have seen in Latin America, notwithstanding that their Inca ancestors had developed a competent and artistic civilization. Contrasted with Argentina's agricultural exports, Bolivia's exports are derived from minerals. Before World War II Bolivia ranked third among producers of tin and during the war it was practically the only producer. A plant was built in Texas during the war for smelting Bolivian tin ores, which are of a complex nature. The war stimulated the export of antimony and tungsten. Silver has always been an important product. It is said that during Spanish colonial times over two billion dollars worth of silver were produced by the famous mine at Potosí. Gold is also exported. Important petroleum wells are worked near the Argentine border, and experts believe that a great oil field exists along the flanks of the Andes in southeastern Bolivia. A dozen years ago one of the large oil companies of the United States obtained a government concession to develop this oil field, but a few years later it was cancelled by mutual consent.

Brazil with its area of 3,286,170 square miles is by far the largest Latin-American country and slightly exceeds the area of the United States. It has a population of 44,460,000 and is, therefore, nearly half the extent of South America, both in area and population. Its capital, Rio de Janeiro, with a population of 1,862,000, ranks next to Buenos Aires. It is estimated that 60 per cent of the population are whites, mainly of Portuguese, Italian and German descent; 28 per cent Negroes, 2 per cent Indians and 10 per cent mixed whites and Indians. The Negroes, as in the United States, are found principally in the semi-tropical region where sugar, cotton and citrus fruits predominate. There has been less feeling between the two races than in the United States, perhaps because it is said in Brazil that one drop of white blood makes one all white; in the United States it is said that one drop of black blood makes one all black.

Brazil is fortunate in having both mineral and agricultural resources for export. Her deposits of iron ore are among the richest and largest in the world. Last year the Export-Import Bank of the United States gave Brazil a credit of $45,000,000 toward the erection of a steel plant, capacity 1,000,000 tons annually. Before the war some 400,000 tons of iron ore per year were exported, but it is expected that this will be largely exceeded with improved transportation facilities to the seaboard, 340 miles from the mines. Brazil is lacking in coal, which occurs only in the southern part and is of an inferior grade. Brazil has great hydroelectric resources which assure cheap production of power. Among other important mineral exports are gold, manganese, industrial diamonds, chrome and mica. Quarts crystals of the best quality, so needed by radar and

radio, are found only in Brazil. As to agricultural products, Brazil supplies about 65 per cent of the world's coffee consumption. She is now the fourth largest producer of cotton in the world and has important textile mills. Brazil ranks fifth in the production of tobacco and third in the production of corn which is consumed at home. She is a large producer of sugar, of which 66,000 metric tons were exported in 1940. Manioc (tapioca) is an important crop, and fruits are increasingly grown. The livestock industry is important with its exports of meat, hides and skins. Until 1911, Brazil was the world's chief source of rubber, but due to lack of cheap labor she has been unable to compete with the plantations of the Far East. It is expected that rubber will again be exported when the Ford concession with its 2,700,000 trees will begin full operation.

Chile, with its length of 2,660 miles and average width of 110 miles, has an area of 286,396 square miles and a population of 5,237,432. Santiago, its capital city, contains a little over 1,000,000 people. Chile has the largest commercial deposit of sodium nitrate in the world. As an exporter of copper she ranks first, and as a producer is second only to the United States. It is the chief coal producing country in South America. Valuable iron ore has been shipped to the United States for some years. The domestic economy is dependent on agriculture, where livestock and wheat are important. Fruit growing has been developed, and Chilean wines are well known in foreign countries. The principal industrial groups are those producing foodstuffs, beverages, woolens, textiles, wood pulp and explosives. Of the population 75 per cent are of Spanish descent, with some admixture of Indian blood. Those of other European extraction constitute 20 per cent of the population, and Indians 5 per cent.

Colombia has an area of 439,997 square miles and a population of 9,523,200. Its principal exports are coffee, gold, petroleum and platinum. It is next to Brazil in its export of coffee, which accounts for nearly two-thirds of export values. Rich in forest products and mineral resources, Colombia is the fourth producer of petroleum in Latin America. Coal and iron are apparently abundant, but have not been greatly developed. Emerald mines are the world's largest source of this precious stone. Her chief industries are those connected with the production of textiles, yarns, sugar and beverages, all consumed locally. Ten per cent of the population are pure Indian, 15 per cent whites, and 45 per cent a mixture of whites and Indians, 30 per cent Negroes.

Ecuador has an area of 125,000 square miles and a population of 3,105,541. Indians make up 41 per cent, whites 15 per cent, white and Indian mixture 39 per cent, and 5 per cent Negroes. Major exports are rice, cacao, rubber and balsa (a very light wood). Petroleum is found in the Santa Elena peninsula with a production of 2,344,000 barrels in 1940. The exports of gold, silver and copper make up about 20 per cent of the total value of exports. The production of rice, largely exported in 1943, was the largest on record. Ecuadorian cacao is one of the finest grades on the market, and ranks third among Latin-American exports

of that product. Rubber production was stimulated by the war. Textile manufacturing is the chief industry.

Paraguay has an area of 177,104 square miles and a population of 1,040,420. About 97 per cent of the people are descendants of the Guaraní Indians and the Spanish colonists. Although Spanish is the official language, Guaraní remains the popular language, even among the higher classes. Negroes are practically unknown. The principal exports are quebracho (a tanning extract), canned meat, hides and cotton. The economy is based mainly upon the pastoral and forest industries. Yerba mate, a tea-like leaf, grows wild in the forests of northeastern Paraguay and forms a substantial export.

Peru has an area of 532,047 square miles and a population of 7,271,654. About 75 per cent of the people are found in the high dry zones of the mountains. Pure-blooded Indians comprise 46 per cent of the population, pure whites 1 per cent and a mixture of the two 53 per cent. The whites are principally of Spanish descent and make up the ruling economic group. The principal exports are petroleum derivatives, sugar, copper, gold, silver and cotton. Peru's fame as a source of gold and silver is almost legendary, dating back to the times of the Incas. Today mining is the major source of revenue for the government. Peru produces one-third of the world's vanadium. It is the second producer of copper in Latin America. Coal is also an important mineral and fortunately occurs near the mines. Peru's industries comprise foodstuffs, textiles, tanning and leather manufacture, and cottonseed oil. Cotton is one of Peru's oldest crops, and the production of sugar is also important. The vineyards produce excellent wines and some liquors.

Uruguay, with an area of 72,153 square miles and a population of 2,164,000, is the smallest of the South American countries. It is probably the most concentrated livestock country in the world, and in proportion to its size it is the leading meat and wool producer. Sixty per cent of the total land is used for cattle and sheep raising; and wool, meat, hides and linseed account for 90 per cent of exports. The packing plants are owned principally by foreign corporations. Socially and politically, Uruguay is well advanced, being a leader in international thought as well as internal social measures. The origin of Uruguay's population is almost entirely European, primarily of Spanish and Italian stock. There are practically no Indians or Negroes.

Venezuela has an area of 352,170 square miles, and its population is 4,004,731. Its principal exports are petroleum, coffee and cacao. Sixty-five per cent of the population is of mixed European and Indian blood. Negroes living along the coast make up about 9 per cent, whites 20 per cent, and pure Indians 6 per cent. Financially, Venezuela with no foreign or domestic debt, is one of the soundest countries in the world. Her great wealth lies in the quantity and quality of her natural resources and in the intelligence of her political leaders in recent years, who brought about the development of her vast petroleum resources by foreign

capital on terms profitable to both parties. Although basically an agricultural country, petroleum now practically supports the national economy, and contributes 90 per cent in the value of her exports. Venezuela is now the third largest oil-producing country in the world. About $360,000,000 of foreign capital is estimated to be invested in petroleum. Some 95 per cent of the output is exported, nearly all to refineries in Aruba and Curaçao, Netherlands West Indies.

In this brief review of the agricultural and mineral resources of the twenty Latin-American republics and the types of their inhabitants, there is a great field for technology, which discovers the best method of raising and processing crops and the best method of producing and treating minerals, so that both agricultural and mineral products can be placed on the market at the lowest possible cost. But the accomplishment of this task will depend not only on technologists, but also on the ability of the people to establish governments competent to develop their natural resources. There has always been a great difference of opinion as to the most competent form of government. There is little doubt that the characteristics of the people in each country has much to do with the solution of this problem.

It is interesting to know that Simón Bolívar had this in mind when he freed from Spanish rule the countries that we know now as Venezuela, Colombia, Ecuador, Peru and Bolivia. In the constitutional convention held in Angostura (now Ciudad Bolívar) Venezuela, February 15, 1819, Bolívar, after criticising in detail the form of government adopted by the United States, said: "It would be better to adopt the Koran than the form of government of the United States. . . . It has never even remotely entered my mind to consider a parallel between the position and nature of the two republics as distinct as the Anglo—and the Hispano-American. We must face the fact that our race is not European or North American; it is rather a composite of African (Moorish) and American than an emanation of European, for Spain itself ceased to be European by its African blood and character."[2]

The government recommended by Bolívar was to be divided into four branches: executive, legislative, judiciary and supervisory. The president was to be popularly elected for life; the senate was to be hereditary—elected the first time by the constitutional congress—and the lower house elected by the people. When finally adopted, the constitution made no provision for the fourth branch of government—the educative and inquisitive supervision which was so much desired by Bolívar. What remained then was a constitution having much resemblance to that of the United States. Although Bolívar tried to have his form of government adopted by other countries he had freed, he was not successful.

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[2]Thomas Rourke, *Man of Glory—Simón Bolívar* (William Morrow & Co., 1942), page 204.

Nevertheless Bolívar was correct in pointing out that there is a difference in type between the people of South America and those of the United States. Although the present form of government in Latin-American countries, generally speaking, is similar to that of the United States, the fact that it has not fitted the characteristics of the people is indicated by the tendency toward dictatorships. For example, in Argentina, Rosas was dictator from 1829 to 1852—23 years; in Guatemala, Cabrera was dictator from 1898 to 1920—22 years; in Venezuela, Gómez was dictator from 1908 to 1935—27 years; in Mexico, Díaz was dictator from 1876 to 1911—35 years. Nevertheless, dictatorships have been the exception —not the rule—and the resources of the great majority of the Latin-American countries have been developed by domestic and foreign capital under governments duly established by democratic procedure.

A dictatorship is not necessarily vicious, for in certain countries and at certain times it has been the best form of government. The dictatorship of Díaz in Mexico was beneficial,[3] for he limited his dictatorship to bringing about order after many years of revolution and disorder, which made it impossible for the Mexicans to attain a decent standard of living. With order established, it was possible, largely through foreign capital, to develop his country's metal and petroleum resources, railroads, industries, ports and other public and private works. As a result, labor enjoyed a prosperity not known before. Henry Adams visited Mexico in 1894-95 during the Díaz regime, and wrote to a friend from Guadalajara: "Labor is scarce and everyone is employed. Mining, manufacturing, refining and all the usual signs of prosperity are rapidly increasing." From Cuautla he wrote: "We have passed a week among the Mexican Indians in their huts, eating their tortillas and chile, sleeping in their beds, and intimate with their pigs, hens, burros and babies. I think I know something about their way of existence. Agriculture, manufactures are all splendidly successful and the poorest labor is well employed." Later, from St. Thomas he wrote: "Here in the tropics they talk of nothing but sugar and coffee, low prices, ruin and discontent. I ought to except Mexico, where all is prosperity and satisfaction."[4] Ten years later (Díaz still president) I spent four months in a small Mexican village while making a railroad survey in the State of Vera Cruz, and found conditions similar to those pictured by Mr. Adams. And there were no bandits, which were plentiful before and after Díaz. Díaz, unlike some dictators, made no effort to tell his people what to do, but left that to their own good judgment and to the opportunities offered by domestic and foreign capital.

Díaz in Mexico and Gómez in Venezuela realized that foreign capital would be required to develop their petroleum and other mineral resources. That has been true of most of the Latin-American countries as it was

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[3]This statement and the ones that immediately follow it constituted the basis for considerable debate in the discussion which followed the reading of this paper.—Editor.

[4]*Letters of Henry Adams, 1892-1918* (Houghton Mifflin Co.), Vol. 3, pages 59, 63, 65.

of the United States in early days when foreign capital helped develop her resources and loaned money to some of her states. Such investment of foreign capital brings about higher wages than that paid by local employers, as noted in a recent book on Costa Rica: "Big American companies such as the United Fruit Company and the highway contractors building the Inter-American road, pay common laborers considerably higher wages than native Costa Ricans pay the hard-working coffee peon, and really excellent wages for skilled labor."[5] In my own experience I found that the development of petroleum in the State of Vera Cruz put up the wages of common labor, within a few years, to four times what it was before. This rise in wages was not relished by large landowners, who did not like to see their labor enticed to leave their employ.

A dictatorship like that of Díaz—no matter how benevolent to the mass of people—is sometimes followed by revolution and disorder. This was true in Mexico, for it was twenty years after Díaz before that country became tranquil in all her borders. The last serious revolt took place in 1929. When I visited Mexico in 1928, an armed car of soldiers was attached to the train between Laredo and Mexico City to protect the passengers from bandits. But revolution does not always follow a dictatorship, as witness the orderly election of the two presidents who followed the death of Gómez of Venezuela in 1935.

Most of the Latin-American dictatorships have been of the Díaz and Gómez type, where a free economic society, nevertheless, could exist, and where there was no effort to attack neighboring countries. This is quite different from the dictatorships of Hitler and Mussolini which were aimed at full control of their own and other countries—politically and economically. But there is another type of dictatorship that may retard technological development, and that is a tendency toward "Statism" where the State, instead of individuals, controls the economic forces of the country. There is trend in this direction even in the United States where, in the past, it has been fundamental that the State was made for man and not man for the State. This trend has been illustrated by the New Deal in the United States, and by the type of Socialism that has recently been adopted by the Labor party in England, and which seems to be popular in France and other European countries. In South America there is a tendency toward Statism, for Bolivia has asked that negotiations for tin be handled through the government and not directly with producers. Brazil has instituted measures for mica and quarts crystals, which practically exclude private enterprise from taking a large part in international trade. In the United States there is a strong tendency to retain certain governmental controls which were originally adopted as war measures.

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[5]John and Mavis Biesanz, *Costa Rican Life* (Columbia University Press, 1944), page 167.

This tendency toward Statism is nothing new, for it is modeled after the dictatorship of Louis XIV of France, who, through Colbert, his finance minister, tried to manage all industry, even prescribing the number of threads to the inch in the weaving of cloth. The results of this policy on commerce and industry is summed up in the *Encyclopedia Britannica*:[6] "This minute regulation probably accounts for the failure of the great trading corporations which he set up in 1664 for trading in India and in America, while the British and Dutch monopolistic trading companies, with their operations untrammeled by the government, prospered." When Colbert, perplexed at the failure of his autocratic policy, asked a manufacturer what he could do to help industry, he received the reply "Laissez nous faire" (let us alone).[7] Thus came into being the term *laissez faire*, which has been applied to the economic policy which, in the past hundred years, has brought about in the United States the highest average standard of living ever known. So the technological future of the Latin-American countries will depend not only on their mineral and agricultural resources and their technological development, but also on their type of government. And this applies to the United States as well.

Although the Latin-American countries are better off financially than ever before on account of their augmented sales to the United Nations during the war, most of them will still need foreign capital for the development of their resources. It is an encouraging sign to see in the public press that foreign and native capitalists are joining to accomplish this purpose. Not only do foreign capitalists in this way receive support from domestic capital but, more than that, they receive the social and political aid from local sources, and thus help to ward off attacks which are often made on a wholly-owned foreign corporation. Such coöperation between domestic and foreign capital might cure the situation described by Howland Bancroft, well-known mining consultant, in an address made at the annual meeting of the American Institute of Mining and Metallurgical Engineers, Chicago, February 26, 1946, in which he said that policies in certain Latin-American countries toward foreign mining companies make earnings and the amortization of capital uncertain, and even threaten the rentention of legally acquired property. He added that a business venture in Latin-America is not even a fair gamble any more.

Some years ago in the oil fields of Mexico, where I was examining the management of one of the smaller oil companies, I was much interested in the types of management of the two large foreign corporations in that field which were drilling wells, building roads, constructing pipe lines, etc., all on a very large scale. I found that in one of the corporations practically all the men in responsible charge in the field were Mexicans, while similar positions in the other company were filled by foreigners

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[6]Volume 5, page 986.

[7]*Encyclopedia Britannica*, Vol. 13, page 598.

who were undoubtedly paid much higher wages. It is due to this latter policy that, in recent years, several Latin-American countries have forbidden the employment of more than a certain percentage of foreigners by foreign corporations or their subsidiaries.

Nevertheless, these countries will still have to depend largely on initial foreign capital and management for the large experimental agricultural stations and research laboratories that are so necessary for technological processes. A good start in this direction was made five years ago by the United Fruit Company with its 110,000 acres of bananas in Honduras, Guatemala, Panama, Costa Rica, Colombia, Ecuador, Jamaica and other areas. In addition there are 95,000 acres of sugar cane, principally in Cuba; also 51,000 acres of cacao in Costa Rica, Panama and Ecuador. The company has 70,000 employees, almost 90 per cent of whom are citizens of the respective American nations in which they work.

The establishment of a banana plantation requires elaborate surveys of topography, soils and possible railroad and drainage sites. Then river ports, air fields, hospitals, work camps, workmen's quarters, field clinics, and supply depots are established in the wilderness. The indispensable drainage systems are located and completed. Seaports are made ready and railroads are built to link them with each future banana farm. Reliable supplies of drinking water are developed. Hundreds of permanent buildings are erected, field sanitation is instituted, farms laid out, bridges and roads made ready, hospitals, churches, schools and other public buildings erected and put in use. Protection against ruinous fungi and insects calls for the permanent installation of elaborate equipment. This requires that the banana fields permanently be girded with pipelines, dotted with heavily-powered pumping stations, and manned by capable spraying crews. The banana crop also requires irrigation, since the harvests otherwise may vanish during the dry season.

In order to have competent local personnel, the United Fruit Company has recently established a practical agricultural school which will supply free and expert training for Latin-American youths. The name of the school is Escuela Agrícola Panamericana (School of Pan American Agriculture). It is located about twenty-five miles from Tegucigalpa, the capital of Honduras, and the cost of the physical plant was around $750,000. The permanent enrollment will be at least 160. The course covers three years of intensive study, with a fourth or specialization year for students who prove outstanding proficiency. The school supplies all students with lodging, clothing, board, books, laboratory equipment, medical services and all necessary goods entirely without cost. Each student works four hours each weekday at practical field work, with four hours devoted to study.

The course of study is carefully planned to develop native agrarian leadership, both in independent agriculture and agricultural extension service. The curriculum includes a wide variety of modernized training in soil analysis, land surveys, road building, irrigation and drainage, as

well as physiology and hygiene, with particular emphasis on the treatment of common tropical diseases; also courses in farm marketing, in agronomy, orchard culture, forestry, crop rotation, livestock husbandry, practical farm engineering, blacksmithing, carpentry, and use and care of staple tractive farm machinery and other essential implements all bearing on common needs of the American tropics. The faculty includes experienced, recognized educators from Latin America, the United States and other countries. The United Fruit Company was induced to establish this school because their officers found that "on the whole Latin-American workers have shown truly amazing facility in learning to work proficiently in the scores of requisite skills."[8] As the United Fruit Company is working in seven countries which vary greatly in race mixture, this is a most encouraging statement. My own experience in four countries, all different from the seven noted above, confirms the quotation just made.

While there may not be an adequate number of agricultural schools in Latin America, every country has universities, colleges, institutes or schools that offer instruction in agriculture, ranging from 1 each in two small countries to 11 each in Cuba and Chile, 26 in Argentina, 39 in Mexico and 69 in Brazil. As to engineering schools in these countries, they range from 1 each in eight small countries to 5 in Chile, 6 in Brazil, 7 in Argentina and 8 in Mexico.

In addition to the facilities offered by these various countries for their students to acquire agricultural and engineering instruction, many seek education in the United States, particularly during the war years under the good neighbor policy carried on by our government. According to figures prepared by the Institute of International Education, for the school year 1941-42 there were enrolled in United States educational institutions 151 agricultural students and 662 engineering students from all Latin-American countries; for the school year of 1942-43, 90 agricultural and 351 engineering students. There was no breakdown for either of these periods regarding the number of students receiving United States governmental assistance. For the school year of 1943-44, there were 354 engineering and 83 agricultural students enrolled from Latin America. In the engineering group, 10 were listed as receiving maintenance or travel aid from the United States government, 35 receiving aid from United States colleges or universities, 8 receiving assistance from both United States Government and United States colleges or universities; 274 were listed without giving the source of assistance (presumably their own funds), and the remainder received assistance from private sources in our country, their own government, or non-governmental, non-college aid. In the agriculture group for 1943-44, two are listed as receiving maintenance or travel aid from the United States Government, eight from United States colleges or universities, 10 from the United States Government and United States colleges or universities, 49 no source, and

[8] A. A. Pollan, *The United Fruit Company and Middle America* (January, 1944).

the remainder miscellaneous assistance. For those who are desirous of pursuing this matter further, I suggest they obtain the "Comprehensive List of Students from the Other American Republics Enrolled in United States Colleges and Universities during the Academic Year 1944-45," compiled as of March 15, 1945, from the records of the Clearing House on Student Interchange, Washington Bureau, Institute of International Education, 927 Fifteenth Street, N. W. Washington 5, D. C.

The foreign mining and petroleum corporations, whose operations in their line are as multifarious as those of agricultural companies in their line, are training natives to take positions of responsibility and are adopting measures to conform to governmental regulations. The various nations of South America vary widely in their approach to the employer and laborer but they all without exception protect the workman, providing him with vacations, severance pay, and usually with unemployment insurance, retirement funds, and other social services. Generally both workman and employer contribute. Again, the standing of labor unions is different in each country. In some they are illegal, whereas in others they are semiofficial bodies, but there is no doubt that the day of slave labor in mines has passed; the workman either has his own organization to back him up or an official organ of the government.[9]

There are engineering societies in all but a few of these countries. Five years ago the principal engineering societies of Argentina, Bolivia, Brazil, Chile, Colombia, Paraguay, Peru, Uruguay and Venezuela formed the Unión Sudamericana de Asociaciones de Ingenieros (South American Union of Engineering Societies) with headquaters in Montevideo. Late in 1941 an Argentine member of this Union was in New York and approached several engineering societies to establish friendly relations. As a result, the American Society of Civil Engineers, American Institute of Mining and Metallurgical Engineers, American Society of Mechanical Engineers, American Institute of Electrical Engineers and the American Institute of Chemical Engineers formed the Joint Committee on Inter-American Engineering Coöperation, on which each society was represented by a member. A letter was issued by the Joint Committee to the principal engineering societies of Latin America, in which the Committee explained its objectives, and invited suggestions regarding programs for exchange of technical papers, promotion of professional and social intercourse, collaboration on technical problems related to industries and public works and development of natural resources; exchange of individual and collective visits; participation in international congresses and conferences; and other mutually desirable and beneficial ideas. Among other results of this correspondence was the calling of a Pan American Engineering Congress to meet in Buenos Aires in November, 1946. Later this Congress was indefinitely postponed on account of uncertain political conditions in Argentina.

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[9]Newton B. Knox, *Mining and Metallurgy* (March, 1946), page 178.

In conclusion, the technological future of the Latin-American countries is brighter than that of any other portion of the world. Practically all of Europe and a great part of Asia have been devastated physically and financially by the war, and it will take many years to repair the damage. The United States has been financially devastated by the war, the most serious effects of which may not be felt for some time. But the end of the war finds the Latin-American countries better off financially, not only because of increased sales of products much needed by the United Nations during the war, but also by reason of the Good Neighbor Policy which, through the construction of highways and other necessary works during the war, and through loans by the Export-Import Bank, has made possible the more rapid development of their natural resources than would have been possible under the pre-war days of peace. Therefore, the technological future of these countries will now depend upon their people and their governments to take advantage of the situation. And I believe they will rise to the occasion.

PRACTICAL PROBLEMS IN THE TRADE WITH LATIN AMERICA

T. J. CALDWELL

Former Vice-President, Union National Bank, Houston, Texas

Doubtless, we who have gathered together in this conference are generally persuaded that within the next few years there will take place a very large expansion in our commercial, financial, and cultural relations with the Latin-American countries and their peoples. Everything points that way.

During the last few years, a great common enemy has drawn the people of the American continents together much closer than ever before. The lesson has been driven home to all of us that none of us can live without the rest of us and that we are all interdependent not only for our material prosperity and spiritual happiness, but for our personal and national security as well. The result is that we have made greater efforts than ever before to understand each other, our habits and thoughts, and all of us have become better informed as to the good things and more tolerant of the shortcomings of the rest of us. We have come out of this great war with the determination to understand each other and to work together in every way possible to build up a bulwark of defense against outside aggression. The Good Neighbor Policy seems to be having good effect in convincing all of the American countries that they can work together for mutual benefit without danger of "over-reaching."

The end of World War II leaves the United States with unprecedented wealth and power, with an unprecedented public debt, with taxes fearfully high, with interest rates and other investment returns exceedingly low. The public debt is now almost as great as was the total estimated national wealth before the war, and the return on safe investments has gotten so low as to endanger the habit of thrift. Industry and labor have been keyed up to a point where potential production is far beyond the peace-time needs of the country. We now have by far the largest merchant marine in the world, being five times as many dead-weight tons as before the war, and nearly three times the size of that of the British Empire. All this means that the pressure on American business to expand into other lands is going to be very great, indeed, and much greater than ever before. Under these circumstances, naturally, we look to the South—to the Latin countries.

Latin America is in its infancy in development. There are almost unlimited natural resources, covering practically the whole list of commodities needed by the people of the world. There are millions of acres of fertile land that have never been cultivated. There is labor in abundance. All that is needed is capital with which to develop the possibilities.

During the war, Latin-American countries sold great quantities of war necessities to us and took dollar credits in payment, which fact shows the

desire to coöperate on their part and their confidence in the stability and integrity of this government. I am told that these dollar credits amount at this time to about three and one-half billion dollars. These credits accumulated, of course, because, due to war conditions, goods that were wanted in exchange could not be shipped. In consequence, a very great desire and need for goods of all kinds is now waiting to be satisfied as soon as such goods can be made and shipped. It is estimated that the goods which Latin America will want and will be able to pay for during the next few years will amount to as much as seven billions of dollars.

The accelerated production that these countries undertook and the depletion and obsolescence that their equipment suffered because of a lack of replacements makes for a very dangerous situation both as to dislocation of labor and capital as well as the possibility of inflation of prices. I understand that these countries have coöperated splendidly with our government in the effort to minimize both of these dangers. For the time being, export restrictions are absolutely necessary, just as price ceilings and rationing are necessary here.

Looking forward to the time when trade can again flow freely through natural channels, our government has taken the lead in providing facilities for assisting actual transactions. The Export-Import Bank of Washington, with a capital of one billion dollars and a total lending capacity of three and one-half billions of dollars, has for several years been actively extending credits where needed. The International Bank for Reconstruction and Development and the "Fund" will soon be set up under the Bretton Woods Agreement. To what extent the "Fund" will accomplish the stabilizing of currencies cannot be foretold, but that the Bank will do much permanent good there can be no doubt. In my opinion, loans made through the Bank will not invite the suspicion of "imperialism" and "dollar diplomacy" to the extent that private investments have sometimes done in the past.

A discussion of this kind would accomplish little if we did not frankly mention some of the things that our Latin-American friends have done in the past that have discouraged the investment of American capital within their borders. This certainly is a time for perfect frankness and open discussion.

The requirements that majority stock ownership and management be vested in citizens of the country, although well within the rights of the country if done in advance, are definitely calculated to discourage the investment of outside capital. My guess is that such requirements are designed to prevent outside interference, but it seems to me that that can be accomplished in other ways that will not intimidate capital looking for investment.

Unstable governments, of course, can do more to frighten capital than any other one thing, and when it comes to "expropriation" and "taking of private property without due compensation" in full good faith, and outright debt repudiation, such things are absolutely incompatible with

capital investment. In the past there have been entirely too much of all of these within the borders of some of our friends. For many years, I have been a director of a company which had at one time a prosperous business in Mexico valued at more than a million dollars. It was owned by Texas and Louisiana citizens. Since 1910, that business has been completely dissipated and those who invested their money in the project have charged it off as a total loss. Investors don't forget such experiences.

For some time, I have been persuaded that before this old world is going to be able to enjoy a lasting peace, so that the earth's resources can be appropriated to the proper use of mankind, we are going to find it necessary to revise our idea of "sovereignty" in at least two important respects.

In the first place, I understand that it is good "international law" for a government to subject foreign persons and foreign capital to any treatment to which it subjects its own nationals. It is because of this law that expropriation, land confiscation, and debt repudiation are excused. In my opinion, the enlightened nations are going to have to agree among themselves and say to all the nations: "Hereafter, when you have invited into your borders foreign persons and foreign capital, you must treat such persons and such capital in accordance with certain well-defined, written or unwritten, rules of international law and without regard to the treatment you may impose upon your own nationals."

Again, after World War I, we carved out a number of small nations and made them "sovereign." Not being economic units, they immediately began to exercise their sovereignty by setting up all kinds of impediments to international trade, thereby throwing out of gear the economic setup of centuries. In my opinion, we must revise our idea of sovereignty to the extent of saying to all nations that they shall no longer have the right arbitrarily to impede the natural flow of international trade.

There is what is known as the "Uruguayan Proposal," the exact meaning of which I am not sure I understand, but it seems to me that this proposal by the Uruguayan Government has for its purpose remedying these conditions which I have been describing. It probably proposes that the peace-loving nations of the American continents get together and formulate rules which all nations must observe in the treatment of people and their rights. If this is what is meant, the proper action thereunder would go very far in assuring the peaceful enjoyment of prosperity by all of us.

Please don't understand from what I have said in criticism of others that I think our own country has been free from blame. To the contrary, in my opinion, the United States has been the greatest offender of all in the matter of interfering with the free flow of international trade. Our "protective" tariff has been the pattern for the world, and in "import restrictions," "export subsidies," "exchange controls," and "currency manipulation" we have been no second-rater. The Smoot-Hawley Tariff Act, which raised "protective" duties to the highest point known, set the

whole world off in a wild race to do the same thing, with economic chaos and finally war as the result.

Much is being said just now about the "industrialization" of Latin-American countries—a very worthy ambition, and one in which we can freely help without fear of loss to our own volume of trade, provided such industrialization takes place in a field of free competition and without artificial governmental restrictions, which only result in a lowering in the total of production and, therefore, in the national wealth. We will be in a most unfortunate position to discourage such things on the part of our neighbors, if we continue our own fallacious policy of "protecting" our home market.

Apparently, the American public is beginning to wake up to the racket from which they have so long suffered, and the cry is becoming louder and louder for tariff revision downward, but we have gone so far along this treacherous road that the effort to reverse the trend is going to be painful and require much time. The Reciprocal Trade Agreements program is a step in the right direction, but this is only an effort to accomplish by indirection what it is politically impossible to accomplish directly. The very small number who benefit from "protection" are well organized and well financed, while the great number who suffer its harmful effects are unorganized, uninformed, and indifferent.

It really is remarkable how deluded the American public has become about the economic effects of the tariff. We have become thoroughly persuaded that in some way the tariff has increased the wages of labor in this country and that in some way it has been responsible for the great prosperity that we have enjoyed, both of which are entirely fallacious.

As important as a downward revision of our tariff is to the future of our Latin-American trade, we do not have time to go into a detailed discussion of the subject, except to point out briefly just a few of the most generally misunderstood features of the same.

1. The protective tariff does not increase the wages of labor in the protected country. To the contrary, it lowers the real wages of all labor, even of that engaged in the protected industry.

2. The protective tariff does not raise the standard of living in the protected country. To the contrary, it lowers the average standard of living by encouraging "uneconomic" production which displaces "economic" production, thereby lowering the total of production.

3. The protective tariff raises the cost of production of commodities generally in the protected country.

4. The capital invested in the protected industry reaps all the benefit of the protection, in the form of a toll on all other forms of production, and shares not one penny of it with the labor engaged therein.

5. The toll in added costs to American consumers of commodities protected by the tariff amounts to several billion dollars every year.

Until the American public has become aroused to the harmful effects of the political philosophy of protection, little will be accomplished in remedying a situation that has already done very great harm.

In conclusion, I want to say a word for the producers of Texas and the Southwest, whose attitude on the tariff sometimes seems inconsistent. The only tariff schedules that benefit us in Texas are the wool and the cattle and meat products schedules, which schedules are exceedingly irritating to some of the Latin-American countries, especially Mexico, Argentina, and Uruguay, who are large exporters of these products. Therefore, whenever the question of reducing tariffs or of making new trade agreements comes up, the first schedules mentioned are these in which we have a little interest. I say that we are not inconsistent when we take the position that we do not want tariff reduction to begin with these particular schedules. What we want is the lowering first of the schedules on manufactured goods, textiles, shoes, hats, steel products, aluminum products and others that we must have in everyday life. If these schedules are reduced so that we can buy better products at less cost from European and Asiastic industries, the dollars will thereby be provided with which such European and Asiastic producers can in turn buy the wool and the meat products of our Latin-American neighbors, and then those products will no longer be depressing the prices of our products at home, and we will have no further need for protection on wool and meat. No better illustration could be had of the beneficial effects of multilateral trade. We don't need the wool and the meat of Argentina, but we do need the things that will help others enjoy more of such products than heretofore. Why not devote our efforts to assisting the Latin American to dispose of his products where they are more needed than here.

At this moment, as never before, the United States has the opportunity to become the merchant and the banker for the world, just as England did a hundred years ago. To do so, we must change some of our political and economic thinking, possibly with some inconvenience to some of our best citizens. I will leave the question with you—have we the intelligence and the foresight to do so?

INDUSTRIALIZATION IN LATIN AMERICA AND ITS INFLUENCE ON ECONOMIC RELATIONSHIPS WITH THE UNITED STATES

GEORGE WYTHE

Chief, Regional Policy Staff, Office of World Trade Policy, United States Department of Commerce

Some of the Latin-American Republics have long had a considerable amount of secondary industry, but in recent years the question has received increasing attention as industrialization has acquired greater maturity and stature. Before entering into details, it may be well to take a retrospective glance in order to obtain the proper perspective.

The so-called industrial revolution, beginning in Great Britain in the eighteenth century, has gradually spread in ever-widening circles until it has come to embrace a large part of the world. Industrialism took hold in Central and Western Europe, aided by railroad construction. In the United States, the Yankees early showed much ingenuity in designing their own machines and in organizing production and merchandising methods. Before 1850, Americans had introduced the principles of interchangeable parts, specialized machine tools, mass production and improved factory lay-out, although it was only in 1898 that the United States' exports of finished manufactures came to exceed imports in the same category, and only during World War I that exports of manufactures regularly began to exceed 50 per cent of the total value of exports. India, the home of ancient and important handicraft and workshop industries in the textile, metal-working and other fields, began to introduce machines around 1850, first in cotton and jute; there were a million power spindles in the country by 1876.

During the prosperous 1880's, there was a trend toward the erection of at least some factories in practically all countries of the world; in many instances the new factories consisted of only one or a few machines replacing or expanding previous handicraft operations. As the world moved into the twentieth century, the movement gained momentum in Russia, the British Dominions, the Scandinavian countries, some of the larger Latin-American countries, and, particularly, Japan. In most of these countries, the movement was confined chiefly to the light industries, and in several, hydro-electric power was the chief source of energy. In most countries the early factories were built near waterfalls or coal mines or in forests where wood was plentiful and cheap, and each factory had its own power unit; but the modern development of electric power and the improvements in transport and in the use of coal and petroleum have changed some of the conditions of industry. These changes, together with increased ease and reduced cost of transporting raw materials, have hastened the decentralization of industry and the location of factories closer to consuming centers.

The rhythm of industrialization in those countries that have more recently turned to industry does not in all respects follow that of the older industrial societies, since the newcomers have a wider range of choices as to methods and instruments.

A large part of the leading industrial enterprises in Latin America was established before the first World War, and a considerable number of these are still using the machinery acquired at that time. During the war of 1914-1918, as during the war just ended, industrial enterprises reaped large profits, a considerable number of new industrial establishments were set on foot, and public interest in industrialization was greatly stimulated by the difficulties encountered in obtaining needed goods and supplies. During the inter-war period a substantial number of branch plants of foreign companies was established, and the industrial structure was broadened and consolidated. While it would be a mistake to exaggerate the extent of developments in recent years, secondary industry in the larger countries has now expanded sufficiently that the value added by manufacturing has come to represent a very respectable proportion of the national income.

To me, one of the most significant aspects of the process of industrialization has been the psychological and social changes that have accompanied it. It is not always easy to determine what is cause and what is effect, but along with the introduction of machines, there has developed what economic historians call the spirit of business enterprise. The new generation in Latin America has become machine-minded and business-minded, and is interested in having a larger share, not only of the profits of industry, but also in the actual operation of commercial and industrial enterprises they were formerly content to leave to the immigrant or foreigner. Of course, similar forces have been operating in many parts of the world, and it is to this changed psychology that we must look for the basic explanation of some of the important developments in recent years, such as measures tending to domesticate former foreign-owned enterprises, restrictions on investments and immigration, and the nationalization of utilities and natural resources.

These developments have had and will continue to have an important influence upon the character of our economic relationships with Latin America and upon the volume and nature of the international movements, not only of goods and materials, but also of the other factors entering into the productive processes, namely, capital, labor and technique. Now, these factors may move across international boundaries either individually or in combination. For example, in the case of a branch factory, all of these factors are wrapped up, so to speak, in a single package: the machinery, operating capital, the initiative and management, the blueprints and processes, and all, or most, of the skilled labor. But frequently the factors migrate separately, and it may be well to examine the outlook in these various fields.

In the past the Latin-American countries have received large amounts of foreign capital, particularly in the development of transportation, power, and those mineral and agricultural resources for which there is a large foreign market but comparatively little local consumption. There is also considerable foreign capital in manufacturing enterprises, although an overwhelming proportion of existing plants, both large and small, are locally owned. Until recently, however, most of the factories were essentially family enterprises, and there were no organized capital markets. The majority of investors were not interested in industrial ventures, and foreign entrepreneurs had difficulty in finding local associates. This picture has changed materially during the past decade, as the result of a large influx of refugee capital, the shifting into industry of profits from trading and extractive operations, and the accumulation of large profits by manufacturing concerns during the war. Furthermore, several of the leading countries have established either "development corporations" or industrial credit banks, which not only provide funds for new industrial enterprises (some of which are directly operated by the governments) but also furnish technical assistance and are authorized by law to extend certain favors, such as tax exemptions, to approved enterprises.[1] Several of these institutions have obtained lines of credit from the Export-Import Bank of Washington.

Most of the Latin-American countries now regulate imports of capital, so that it is not possible for a foreigner to invest as he pleases. There are a number of reasons for these controls. One reason is the desire to retain national control over "key" industries, especially those having political or military significance. Another reason is to protect existing factories from the competition of possibly more efficiently operated new concerns. A third reason is to provide an outlet for the new industrial capital in association with foreign investors who can supply the technical knowledge, machinery, and special skills required to set up and initiate the enterprise.

The rules vary from country to country, and from time to time, depending upon the special circumstances of each case. Recent legislation in Mexico may be cited to illustrate the point. The authorization of the Ministry of Foreign Relations is required before foreigners can acquire certain kinds of property, or organize companies to engage in specified types of activities. The granting of this authorization to Mexican companies, which have or may have foreign partners or stockholders, may be conditioned on two special requirements: (1) That Mexican nationals own at least 51 per cent of the capital stock, and (2) That at least a majority of the managing partners or stockholders be Mexicans. Another recent Mexican law, relating to the development of manufacturing industries, provides for tax exemptions and other privileges to new indus-

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[1]See Charles F. Carson, "Financing Latin America's Industrialization", in Arthur P. Whitaker, editor, *Inter-American Affairs 1943* (New York, 1944), pp. 122-138.

tries, subject to the approval of the Ministry of National Economy, which is authorized to refuse the concessions and benefits of the law in cases where the Ministry decides that the new industry would prejudice the interests of industries already established, even though the latter were producing a different type of product.

Despite the growth of local venture capital, it is clear that most of the countries need and want foreign investments, particularly those that bring in needed techniques. We may therefore expect foreign industrial investments to proceed along three principal lines: First, loans by the Export-Import Bank, the International Bank for Reconstruction and Development, and other official sources; secondly, joint participation by foreign individuals and firms with local groups, in which the character and proportion of foreign participation may vary according to the circumstances; and lastly, capital brought in by immigrants or foreigners who expect to reside in the country and reinvest in the country most or all of the profits.[2]

As has been indicated, the Latin-American countries really need modern technical skills more than money. Already the larger countries have mastered most of the production techniques in the older industries, such as textiles, tanning, shoe manufacture and the like, although foreigners are still frequently employed as managers or to perform certain functions, such as dye-masters. Foreign machinery manufacturers and branch factories have had a large part in training the local workers in these operations. In Latin America, as elsewhere, progressive manufacturers send their sons and employees abroad to study the latest processes and methods. In recent years both the Latin-American governments and foreign governments have offered training scholarships abroad. Before the war several European governments and Japan were offering such scholarships, and the United States Government is now doing likewise. Increasing attention is being given to technical subjects in the schools and colleges.

Since about 1931, and in some countries earlier, most of the Latin-American governments have imposed restrictions on the entry of persons who come to seek or accept employment. Originally designed to protect local workers during the depression years, these regulations are now being applied to accelerate the replacement of foreign technicians by nationals. The concessions granted to foreign companies during the last two decades usually contained a clause requiring the use of a specified percentage of local personnel and also requiring the concessionaire to train nationals at the company's expense. Some of the laws also restrict the entry of professionals, such as accountants. While the trend is clear, there is still need for special skills in many fields, and exceptions are usually made in such cases.

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[2]During the period 1940 to 1945, inclusive, Colombia received $176 million in new capital.—United States Department of Commerce, *Foreign Commerce Weekly*, Vol. XXII, No. 9 (March 2, 1946), pp. 18 and 19.

We may now turn to the effects of industrialization on international trade, and begin by examining briefly the experience of the leading industrial nations. As to the volume of trade, the records of these countries show very clearly that beginning with the period of most active industrialization, and continuing up to 1930, the long-range trend of foreign trade was definitely and strongly upward. Of course, the foreign trade of the agricultural and mineral-producing countries also expanded greatly during this period, but this expansion was caused by the demand of the industrial nations for raw materials and foodstuffs, and would not have been possible without foreign investments in production and transportation facilities.

The U.S.S.R. offers a partial exception to the rule. Russian foreign trade also expanded notably during the last quarter century of Czarist rule, which coincided with a period of substantial industrialization, but this trade has not, since the revolution, regained its former levels. Russia has gone further than any other nation in modern times along the road of state-trading and self-sufficiency—and we cannot ignore the influence of this example on other countries—but there are signs that the U.S.S.R. is interested in a large increase of both exports and imports.

It must be recognized that foreign trade has not yet regained the position it held before 1929, and there are some who feel that the aggregate volume of world trade will never again surpass—at least by any appreciable amount—the 1929 level.[3]

As to the composition of the trade of the industrializing countries, a characteristic feature has been a relative increase in imports of crude materials and foodstuffs, and the development or expansion of exports of manufactured products, but there are exceptions. For example, in the case of the United States, the relative position of foodstuffs imports has remained approximately the same over a long period, while in the case of Japan, the ratio of foodstuffs imports to total imports declined over a half-century of industrialization.

The traditional view of international trade as consisting principally of an exchange of the manufactured products of industrial nations for the raw produce of agricultural countries, is a gross over-simplification. Recent statistical analyses have shown that less than one-third of world trade is of this type.[4] One of the most important shifts, in my opinion, has been the increased international interchange in the category of semi-manufactures. The significance of this trade is frequently lost through the fact that semi-manufactures are not always shown separately in the trade statistics, but may be lumped either with finished manufactures or with raw materials.

As regards the effect of industrialization on Latin-American trade, it is, of course, difficult to separate out or distinguish clearly any one of

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[3]Colin Clark, *The Conditions of Economic Progress* (London, 1940), p. 450.

[4]Albert O. Hirschman, *National Power and the Structure of Foreign Trade* (University of California Press, 1945), p. 126.

the various forces operating on international trade during a given period. Latin-American foreign trade showed a strong upward trend during the first two decades of this century. There was a temporary slump after the first World War, but the upward movement continued during the 1920's. There was a heavy decline in 1930-32, but since the latter year there has been fairly steady recovery. I shall not attempt to forecast the future trend, but it seems reasonable to expect that Latin-American foreign trade will follow (and possibly better) the general world trend, unless extreme autarchic policies should throttle the possibilities of expansion.

In all of the Latin-American republics, an overwhelming proportion of the exports are foodstuffs or crude and simply-processed materials, but an examination of the trade returns reveals that a surprisingly large percentage of the exports are semi-manufactures or manufactured foodstuffs. For example, the chief exports of Argentina, Cuba and Chile—meat, sugar and copper bars, respectively—are prepared for market in highly mechanized and efficient plants. It is likely that an increasing proportion of Latin-American exports will undergo further processing before shipment. For example, in Venezuela, the capacity of the petroleum refining industry is being enlarged, and we may expect to see a larger proportion of the oil exports go out as derivatives rather than as crude petroleum. This process involves some complex questions, however, and many factors must be considered in determining the advantages or disadvantages of further processing at the source of the raw material.

Finished manufactures normally comprise a very small percentage of the total value of exports of the Latin-American republics, and furthermore, a substantial proportion of articles listed in this category are really handicrafts or commodities involving a large amount of hand labor, such as "Panama" and "harvest" hats, serapes, glassware, sandals, and leather goods. Some of the machine-made exports, like binding-twine and cordage from Mexico and Cuba, involve relatively simple manufacturing processes. During the war, exports of finished manufactures—chiefly cotton textiles—reached substantial proportions. In Mexico, for example, exports of finished manufactures increased from about 1½ per cent of the total in 1938, to nearly 12 per cent in 1944. Cotton textiles, valued at $25 million, accounted for most of the total value in the latter year, but among the other items were beer, palm-leaf hats, shoes, pharmaceutical products, glass containers, books, and earthen ware. Brazil's exports of finished manufactures in 1944 were valued at $80 million (15 per cent of the total value of exports as against less than one-half per cent in 1938), of which cotton textiles accounted for $55.7 million. Other important Brazilian exports of finished manufactures in 1944 were chemical and pharmaceutical products, machinery, and ironware. These statistics do not include exports of manufactured foodstuffs like meats and sugar. Argentina also exported substantial quantities of manufactured products during the war.

In view of the continuing world shortage of textiles and of textile machinery, some of these exports may continue on a large scale for some time to come, but it appears unlikely that the Latin-American countries will be able to hold all of these gains when price and quality competition again becomes a factor in international trade. Most of the textile mills in Brazil and Mexico—the two countries with the largest volume of textile exports—are equipped with old machinery and heretofore have required stiff protection in order to hold their domestic markets. Both countries are anxious to modernize their equipment, but that will take some time, and, furthermore, it will be necessary to train more efficient workers and managers and to reduce transportation and other costs, in order to put the industries in a position to compete in international markets.

For a considerable time to come the manufacture of consumer goods will be primarily for internal markets, but it is reasonable to assume that exports of some finished manufactures will show an upward trend over the years, especially in those lines where production is organized with the benefit of assistance from foreign management and techniques.

In weighing the effect of industrialization on foreign trade, consideration must be given to the possibility that exports of primary products may be reduced, at least temporarily, as the result, first, of the increased local demand for materials and foodstuffs, and, secondly, by the shift of workers or the increased cost of labor resulting from the competition for the available labor supply. In time, these forces may be offset by the greater mechanization of production in the primary industries, or by an increase in the available labor supply through immigration or natural increase of population, but in some countries primary production has already been mechanized to such an extent that very little labor-saving can be effected, and furthermore, the rate of population growth in some of the larger countries has slowed down.

On the other hand, there is also the definite possibility that the revival of a strong world demand for foodstuffs and raw materials would shift the terms of trade in favor of primary producers sufficiently to put the brakes on industrial development and reëmphasize agricultural and mineral exports. Furthermore, even during the depression years in the 1930's, diversification of agricultural and forest production had considerably more effect on foreign trade than diversification through industry. Among the exports which increased substantially in volume during this period were cotton, fruits, vegetable oils, lumber, and rice.

What will be the effect of industrialization on imports? From an examination of the import statistics of the leading Latin-American countries for the three periods 1911-13, 1925-27, and 1933-35, I draw the following conclusions:

1. As was to be expected, the progress of the textile, leather and shoe industries has resulted in a decline, both absolutely and relatively, of imports of those items in many of the countries. For example, manufactured textiles comprised only three per cent of the total value of

Brazil's imports in 1933-35, as against approximately ten per cent in 1911-13. The principal exception is Argentina, where the consumption of textiles has been growing more rapidly than the output of the local textile factories.

2. The relative importance of imports of pharmaceutical and chemical products increased. Despite the devolpment of the drug and cosmetics industries, local consumption outran the capacity of the local plants. The large relative increase in imports of industrial chemicals reflects, of course, the expansion of industries using these products. During the last decade several of the Latin-American countries have initiated the manufacture of some of the basic acids, solvents, alkalies and other chemicals that have a widespread application in industry, and these developments will gradually be reflected in the trade returns, although it is likely that imports of industrial chemicals will continue to be heavy.

3. Imports of capital goods showed irregular trends. The relative position of machinery imports improved appreciably in Brazil and Mexico, but declined in Chile. Since all types of machinery were included in this category (owing to the difficulty of distinguishing the different types in the trade statistics of some countries), changes in the volume of imports of mining and metallurgical equipment may have been an important factor in countries like Chile. In Peru, imports of machinery reached a peak during the period of heavy foreign borrowing in the 1920's. Considering imports of capital goods as a whole (machinery, transportation equipment, and iron and steel products), there was a substantial decline in imports of this group in Argentina between the first and last periods, which is explained by the heavy imports of railway equipment during the years preceding the first World War.

4. In most of the countries foodstuffs imports declined relatively and absolutely, as the result of agricultural diversification and restrictions on imports.[5]

What further changes are to be expected? Will imports of manufactured products decline as industrialization proceeds? Not necessarily. The answer depends upon a number of factors, one of the most important being the effect of the new industries upon the national income, which is another way of saying that the volume of trade depends upon whether the industries are economically sound or are merely "white elephants." Historically there is a strong parallelism between the long-run growth of national income and the growth of imports (at least up to 1930.)[6]

Our time does not permit us to enter into the complex problems involved in the determination of the soundness of a proposed industry, but in some cases it is clear that the available land, labor and capital can be

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[5]See Table 1 for the distribution of Latin-American foreign trade, by economic classes, in 1928, 1935, and 1937.

[6]Eugene Staley, *World Economic Development* (Montreal, International Labour Office, 1945), pp. 139-147.

Table I

Latin America:

Percentage Composition of Merchandise Trade, by Groups of Countries; 1928, 1935 and 1937*

	Groups of Commodities	Imports, 1928	1935	1937	Exports, 1928	1935	1937
Mineral-producing Countries	Foodstuffs and live animals	15	11	11	13	9	9
	Materials, raw or partly manufactured	19	27	27	85	89	90
	Manufactured articles	66	62	62	2	2	1
Tropical Agricultural Countries	Foodstuffs and live animals	24	21	20	80	74	69
	Materials, raw or partly manufactured	12	14	13	17	24	30
	Manufactured articles	64	65	67	2	2	1
Non-Tropical Agricultural Countries	Foodstuffs and live animals	13	12	11	63	58	62
	Materials, raw or partly manufactured	20	20	19	34	39	35
	Manufactured articles	67	68	70	3	3	3

more advantageously used in primary than in secondary industry. Generally speaking, however, there is a strong presumption in favor of more processing in those countries having limited agricultural and mineral resources and a surplus of low-priced agricultural labor. In Japan, for example, industrialization resulted in a large increase in the per capita national wealth, despite the growth of population. On the other hand, in Australia the output per head in the manufacturing industries appears to have been no more, and possibly less, than in agriculture. It is, therefore, not surprising that during the period 1915 to 1938, Australian imports of manufactured consumer goods rose only slightly in value and probably fell in volume.[7] It may also be noted that the expansion of imports of consumer goods is likely to be less than the rise in national income, since part of the new purchasing power will be spent on services.

The relative strength of the demand for consumer as against capital goods may depend considerably upon national policies. An analysis of the trade statistics show that in "boom" years of high prices for Latin-American exports, the demand for luxuries and semi-luxuries may increase more rapidly than purchases of new capital goods. During the war the Latin-American countries have accumulated substantial reserves of gold and foreign exchange, and as a result, there is a strong demand for the many types of commodities that were in short supply during the war. Most of the governments are anxious to earmark a large part of these reserves for purchases of industrial equipment and materials needed

*Source: League of Nations, *The Network of World Trade*, Geneva, 1942.

[7]A. J. Brown, *Industrialization and Trade* (London: Royal Institute of International Affairs, 1943), pp. 51, 53 and 55-56.

to expand and modernize existing plants or to establish new industries; and a network of exchange controls and licensing restrictions have been put in force for this purpose.

It is clear that the effect of industrialization upon the composition of international trade will be complex, but we are safe in concluding that there will be some changes in the nature of both exports and imports. Professor Hirschman has summarized the possibilities as follows:

> It is . . . very difficult to point to any definite "law" according to which the commodity structure of foreign trade changes in the course of an economic development such as industrialization. This process does not necessarily lead to either a decrease of industrial imports or an increase of industrial exports, nor does it lead to either an increase of the imports or a decrease of the exports of raw materials. It is, however, likely to bring about at least one of these developments. . . .[8]

It is also safe to conclude (barring an extreme trend toward isolation and self-sufficiency) that the spread of industrialism will leave ample opportunity for continued regional specialization of production, based upon differences in climate, resources, special skills, and historical associations and advantages. It will be to the advantage of parts of Latin America to continue to import some of our foodstuffs (such as wheat or wheat flour, lard, and fruits), just as we shall doubtless continue to import coffee, cacao, sugar, and bananas. There will also probably be an increasing interchange in a wide variety of semi-manufactures. There is also room for expanding imports of Latin-American finished manufactures. As is well known, a large part of the trade of the world consists of the exchange of manufactured specialties among the industrial nations. In normal times, the United Kingdom exports one kind of woolen goods and imports another; and similarly with many other kinds of commodities.[9]

We may now examine the effect of industrialization upon the direction of international trade. Since 1913 the United States has been the principal source of imports into the twenty Latin-American countries, taken in the aggregate, and has been the principal market for a much longer period. Furthermore, the United States was the only country, except Japan, that improved its relative position in the Latin-American markets between 1913 and 1938. On the other hand, the United Kingdom and France lost ground, partly as the result of direct competition from the United States, but more (1) because their traditional exports were of the type now being manufactured in Latin America, and (2) because they were not in a position to supply the new types of goods in greatest demand in Latin America. The bulk of British exports, for example, had long consisted of cotton goods, which most of the Latin-American

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[8]Hirschman, *op. cit.*, p. 139.

[9]On this point, see statistical tables in H. Frankel, "The Industrialization of Agricultural Countries," in *The Economic Journal*, Vol. LIII, No. 210–211 (June-September, 1943), pp. 188-201.

countries now produced. Even in those countries that still imported cotton textiles, British exporters suffered severely at the hands of Japanese competition.[10]

The United States made some inroads into markets for goods formerly supplied from Europe, such as iron and steel products and machinery, but its greatest gains were in selling the products of new mass-production industries, such as motor vehicles, tires, office equipment, radios, and electrical apparatus and appliances. The United States also enjoyed a substantial share of the growing Latin-American market for chemical and pharmaceutical products, although the market for the latter was being narrowed by local competition at the close of the 1930's.

Certain types of United States exports also declined both relatively and absolutely. Among the manufactured consumer goods that have been largely replaced by the products of local industries are leather, shoes, and certain types of textiles, rubber goods, and paper manufactures; but in practice the loss of trade in these products was relatively less important than the decline in exports of foodstuffs and other natural produce, such as lumber and petroleum. These observations on the United States trade tend to confirm the remarks in an earlier section to the effect that diversification in the agricultural, grazing, forest and mineral industries may affect the course and volume of Latin-American trade more than the progress of industrialization.

As regards the future outlook, we may anticipate that the bulk of the imports from Latin America will continue for some time to be of the same general character. It is not likely that coffee, sugar and other foodstuffs will be ousted any time soon from their position of primacy. In view of the declining reserves of certain minerals in the United States, there may be larger imports of mineral products over a period of years. During the war large sums were spent to develop sources of supply of a number of strategic or essential materials. The peace-time outlook for some of these is obscure, but there appears to be fair prospect that we shall continue to obtain some abaca, essential oils, insecticide materials, and cinchona from Latin America. The relative importance of semi-manufactures may increase. And we may expect imports of handicrafts and of finished manufactures to continue to grow, although the volume in relation to total imports may continue to be small.

During the war the United States has been supplying 60 per cent or more of the aggregate Latin-American imports. Our share is bound to decline from this war-time level, but it may remain between 40 to 50 per cent. There is a large backlog of demand for industrial equipment, motor vehicles, and other commodities which are still in short supply in the world but of a kind which the United States is normally an important purveyor. Germany and Japan have been virtually eliminated from the

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[10]For further discussion of these points, see George Wythe, *Industry In Latin America* (Columbia University Press, 1945), pp. 347-351.

picture for some time to come. The United Kingdom is anxious to expand exports, but is not likely to be in a position in the near future to compete vigorously in other than a limited number of lines. Some neutral countries, like Sweden and Switzerland, may come in for a larger share of trade, and Canada must not be overlooked.

The new steel mills in Mexico and Brazil are beginning to supply part of the requirements for basic steel products that were formerly imported, but they have not yet solved all their problems, and assuming an enlarged local demand, it may be that imports of these items will continue to be fairly heavy.

As regards consumer goods, local manufacture has expanded and broken new ground during the war. The new industries are asking for, and may be expected to receive, a considerable degree of protection. The situation varies from country to country, but most quality goods must still be imported, and there is a general shortage of goods at present. Furthermore, most of the Latin-American countries have the wherewithal to pay. United States' exports to Latin America of foodstuffs and of forest products were declining before the war. It is possible that this trend will continue, but that there may be an increase of intra-Latin-American trade in these items.

Considering the long-run outlook, various new factors may come into play. There is the possibility that the U.S.S.R. will become an important exporter of some types of goods. Since Russia does not always apply orthodox cost-accounting to its export products, this type of competition may be difficult to meet. We must also take into account changes in technology, taste and styles that may affect our competitive position. For the last half century the United States has been gaining ground in Latin-American markets because the products of our mass-production industries were suited to Latin-American needs and tastes. Whether we shall be able to hold our own or continue to gain ground will depend in large part upon our ability to meet the challenge of the future.

LATIN-AMERICAN AGRICULTURE IN THE POSTWAR WORLD

VICTOR H. SCHOFFELMAYER

Agriculture-Science Editor, The Dallas Morning News, Dallas, Texas

I especially like the title of this paper because it gets us away from the cut-and-dried statistical type of paper which usually falls to the lot of anyone asked to discuss Latin-American trade with the United States of America.

I shall try to project my thinking into Latin-American terms, which I admit is not a simple matter, but it calls for a special type of study which I enjoy.

We must first of all look at the great Latin-American block of nations extending from Mexico southward to the tip of the continent, a region occupying considerably more land than the United States. That region also embraces varied topographical features enabling the production of a wide range of products of farm, ranch and garden, with a substantial addition of wild nuts, oils, rubber and other products, whose aggregate value in terms of import trade could be formidable.

I have no direct acquaintance with Latin America, excepting Mexico, which I have repeatedly visited. My findings in this paper, therefore, may not meet the exacting demands of the geographer and economist who deals only with what he himself has personally witnessed and investigated.

From the earliest times of discovery by Europeans of the continent of South America, there has persisted a certain type of travel narrative which portrays everything exotic as highly glamorous. The terms "vast and prodigious" are constantly used in referring to such regions as the Mexican Plateau, the Amazon Basin, the Gran Chaco, the Pampas of Argentina, the wilds of Patagonia and others. The glamour persists because so few North Americans ever visit those remote countries. That, however, is certain to be changed in view of the ease with which our intercontinental air travel provides facilities which annihilate time and space and bring the farthest corner of the earth within a few hours' journey.

Within the huge region which we call Latin America, we find practically every climatic zone of the world from sea level to elevations nearly 22,000 feet above.

Huge areas under the equator are conducive to a type of vegetation wholly unknown to our United States. We have then a range from the tropical to the frigid as we go southward from Northern Brazil to the tip of Patagonia towards the Antarctic.

The familiar prairies and plains of North America, which give their distinctive geographic character to the United States and much of Canada, are duplicated in the pampas of Argentina and Brazil and the vast level grasslands of Patagonia.

If we think of Latin America in terms of geographic interpretation, we will find that structurally it does not differ greatly from the physiographic features of the North American continent. In both continents the great mountain ranges are located on the western side of the plains, complemented by lesser mountain chains on the eastern continental shelf.

There is one great difference in such a large country as Brazil, however, in that it has a comparatively small population in contrast to that of the United States—70,000,000 as against 140,000,000 for the United States.

Population trends in Latin-American countries are rapidly rising, however, and the time may not be far distant when increasing population will be reflected in increasing demand for consumer goods, as well as structural materials, factory equipment, automobiles, radios and millions of knickknacks such as are household essentials in our country.

If we examine Latin-American agriculture with an open mind, we will find a close relationship between the geographical features of the nations and their type of products.

It is becoming more certain every day that the enormous demands of World War II took a frightful toll of our own raw materials, our iron and steel, copper, aluminum, nickel, petroleum, coal and other basic materials.

It is not unlikely that we shall have to import many raw materials from Latin America over the coming years. These will consist of ores of many kinds as well as vegetable products. Many of these raw materials are certain to be of organic origin rather than inorganic. That would be an adaptation of our imports to the capacity of Latin America to supply such raw materials as lumber and wood pulp, vegetable oils, resins, gums, waxes, linseed, oiticica, cocoanuts, wheat, hemp, rubber, cocoa, quebracho, quinine and hundreds of other wild and domesticated crops essential to our economy.

If we look at the agriculture of Latin America in the postwar world with open eyes, we will begin to see that it is destined to follow the pattern which nature has provided in the varied climatic zones so similar to our own. Ranching will be followed by large-scale farming which will support processing industries eventually.

As world demand for food and fiber products increases, due to the terrific impact of a global war and the interruption of commerce and trade, these huge natural regions are certain to come under even greater development that in the past.

We find that such a nation as Argentina or Brazil is in position to produce perhaps 500,000,000 bushels of wheat instead of the traditional 300,000,000 for export trade, or perhaps 5,000,000 bales of cotton, most of which will be for export.

Similarly we should not be surprised if Argentina's farmers take full advantage of the world demand, including our own, for such a basic

product as flaxseed, of which we annually import some 60,000,000 bushels to satisfy our own industrial needs.

What shall we say shall be the limit of South America's production of wheat and corn, sugar, meat animals, wool and other fibers, sunflower seeds, castor beans, tung nuts, oiticica nuts, wild or domesticated rubber, and of dozens of other vegetative materials which can be grown in increasing quantity?

What shall be the limits of Latin America's production of cattle, sheep, hides, beef, mutton, wool, alpaca, tallow or coarse fibers like henequin, palma ixtle, sisal, hemp and others?

We are dealing with a continent larger than North America. Latin America, beginning at the Rio Grande and extending down to Cape Horn, encompasses practically every clime and every imaginable soil type, and is capable of producing prodigious products of farm, forest and ranch as soon as population and modern machinery make that possible.

In comparison with the land mass of the United States, Alaska and Canada of some 7,258,381 square miles, Latin America has an area of 8,032,832 square miles.

The population of the United States and Canada is roughly 150,248,454 as against 133,307,555 for Latin America. As the standard of living of Latin America increases, the demand for all kinds of products from our country should increase. It then becomes merely a matter as to which nation will supply these needs in terms of export and import exchange.

This brings us to an interesting comparison between two wholly different peoples—the Anglo-Saxon and the Latin American.

The cultures of these peoples differ greatly. In fact, they complement each other. That fact should lead to a constantly expanding commerce between the nations. However, that phase must be dealt with in the light of an enlightened understanding of the distinctive patterns of the different peoples concerned on both continents.

As the Good Neighbor Policy gains momentum, cultural relations between the two continents should make steady improvement. The historical differences, based upon two wholly distinct patterns of governmental concepts—one evolved from the American Revolution, the other from a continuity, more or less, of long-established European customs and traditions—should lead to an attitude of respect and tolerance.

The hundreds of millions of acres of arable land in Brazil, Argentina, Paraguay, Uruguay, Mexico and other Latin-American countries, when scientifically tilled and brought into maximum production, must have profitable outlets for their products. That brings up a problem which must be reckoned with in the coming years. The problem may arise sooner than we now realize.

American farming equipment, tractors, plows, seeders, cultivators, harvesters of every type, and other equipment are being exported to

Latin America from our manufacturing areas in steadily increasing quantities. These machines can only result in the production of staggering surpluses, which may bring about serious economic problems affecting our own export trade and, therefore, our whole agricultural economy.

We must take a look at this crop and livestock production picture as it confronts all the Americas.

The United States during the recent war years has reached an all-time high in its crop and livestock production because farmers not only attained the goals set but exceeded them. They did that with the aid of mechanized farm equipment, although the numbers of workers on the American farm had decreased. That stepped-up productive capacity, however, will greatly interfere with our agricultural export policies, which must be drastically revised. It is logical for farm products which cannot be consumed in our country to be exported. That brings us into conflict with those Latin-American nations which also are in the export business.

It is plain, then, that Latin America and Western Europe are more nearly complementary to each other than the United States and Latin America.

In support of that statement, it is only necessary to call attention to the similarity of agricultural products produced by each of these nations.

The United States produced surplus wheat, corn, rice, cotton, and certain fruits and vegetables. These, along with many manufactured articles, would constitute our export materials. Brazil, Peru, and Argentina, however, also raise millions of bales of cotton for export, which would come into conflict with our own cotton crops, unless we radically reduce cotton production to the needs of domestic demand.

Argentina also produces wheat, corn, flax, cattle and hides, wool and mutton, all of which also come into conflict with our surplus export farm products. From these examples there can be only one broad deduction —that Latin-American imports of necessity must be of a kind which are not in direct competition with similar products grown in our country.

We come then to the basic difference between Latin America and our own nation—that it includes a vast region within the true tropics, a region which is capable of producing tropical products not possibly grown in the United States.

Such commodities include natural rubber from *hevea* trees, either wild or domesticated, or from other types of natural rubber trees and possibly shrubs such as cryptostegia. The United States must have these types of raw materials.

Other tropical products needed by us are sugar, coffee, cocoa, pepper, many spices, and such tannin-bearing products as quebracho. Still others are chincona bark, coarse and finer fibers such as palma ixtle, henequin and some not so well known, which nevertheless could be developed into export materials.

To these tropical crops must be added many subtropical and temperate zone crops such as cotton, corn, wheat, rye, barley, rice, sunflower oil, flaxseed, tungnuts, perrila, oiticica for rapid drying paint and varnish oils, medicinals, mutton and wool, beef cattle and hides, lumber and pulpwood from the greatest forests on the continent, sugar, dyestuffs, and dozens of minor products.

Tropical food and oil nuts offer unusual opportunities. These, while still largely harvested from forests, could be raised in commercial groves. In return for these raw materials we would export manufactured goods, heavy machinery, railroad cars, steel and luxury goods.

We are constantly hearing about an industrial revolution in Latin America, but we hear little as to what is going on in agriculture and the processing of agricultural raw materials. Latin America, I believe, right now is in the stage of early American pioneer exploitation of its natural resources, going through about the same cycle as our country did in the 1880's and 1890's.

Free range on boundless areas of productive native grasses is still only sparsely stocked with cattle, sheep and horses, just as it was in the western United States half a century ago.

Latin-American agriculture also is still in the soil exploitation stage, just as it was in this country until soil erosion called a halt. Vast areas of Mexico and other Latin-American countries are suffering from erosion and soil depletion.

Food and fiber production are largely limited by home needs or the demands of European markets. The war has created great changes in Europe's needs which in turn offer Latin America new opportunities for an expanded agriculture and stockraising industry.

The picture will not change greatly for years because Europe is not likely to become self-sustaining very soon, considering the confused administration in its principal countries and lack of facilities and labor for a first-class recovery.

Indications point to an expanding agricultural output in Latin America, which more nearly can establish a balanced trade with Europe than with our own country. Latin America and Europe are largely complementary in their economies, each needing what the other can produce, which is not the case in the United States.

Scientific research in Latin-American colleges, in experiment stations, and in private laboratories is speeding up the whole agricultural setup. Our own government is coöperating in Brazil, Mexico, Cuba, Guatemala, Haiti, and other Latin-American countries as to introducing suitable new crops and development of native crops which might be exported to our country.

Latin America is just beginning to discover itself. The war has helped towards that achievement. It is perhaps not extravagant to say that Latin-American nations today, in the matter of developing their natural advantages, are about where the United States was half a century ago.

By that I mean that they have millions of square miles of cheap virgin land which can be put to either grazing use or to the production of crops.

Just as the United States passed through its great era of grass and cattle when ranching was not encumbered by fences, railroads and highways, so much of Brazil, the Argentine, Paraguay, Uruguay and Chile are likely to pass through a similar stage in which a grass-livestock economy will be highly attractive to landowners.

It is now widely admitted that Europe cannot possibly feed itself within less than two or three years because of the terrific disruption of its agriculture not only due to the destruction of basic equipment but due to a lack of needed workers, workstock and tractors.

That gives Latin-American nations an opportunity to supply European nations with needed food for several years. The trade relations thus built up should pay large dividends over the years as Europe sooner or later again will be in position to produce manufactured goods to exchange for food products.

That development, however, holds a considerable threat for our own export economy. Much depends, of course, upon what kind of an industrial program will be permitted for such nations as Germany, Austria, Poland, Czechoslovakia, Italy and others. Common sense must admit that European nations must be enabled to manufacture staple articles of commerce which they can exchange for needed food, rubber and fiber or petroleum.

As such a manufacturing economy again develops, it is certain to be at the expense of the United States which may not be in position to take any considerable quantity of Europe's manufactured articles. They would fit more nearly into the Latin-American export program.

Placeholder